Agenda
Board of Supervisors
Isle of Wight County
August 17, 2023

1. Call to Order (5:00 P.M.)
2. Approval of Agenda
3. Closed Meeting
4. Reconvene Open Meeting at 6:00 P.M.
5. Invocation - Supervisor Don Rosie
6. Citizens' Comments
7. Consent Agenda
   A. Budget Amendment - Sale of Surplus Equipment

      Resolution to Amend the Budget and Appropriate Funding for Sheriff's Command Bus Improvements ($11,100)
   B. Budget Amendment - Summer Regional Governor's School Grant

      Resolution to Amend the Budget and Appropriate 2023 Summer Regional Governor's School Grant Funds to the Instructional Category in the Schools' FY2023-24 Budget ($16,352)
   C. Commission for Adults with Disabilities Bylaws

      Consideration of Adoption of the Bylaws for the Commission for Adults with Disabilities
   D. County Policy Manual Revisions

      Resolution to Amend Chapter 1: Personnel, Article XI, Sections 11.8 and 11.9 of the County Policy Manual

E. Minutes

- June 1, 2023 Work Session Minutes

8. Regional and Inter-Governmental Reports

A. Regional Reports

9. Appointments

A. Appointments List

10. Special Presentations / Appearances

A. Budget Book Presentation

Presentation of the FY2023-24 Budget Book

B. County Fair Update

County Fair Spring Events Update

11. County Attorney's Report

12. Public Hearings

A. CUP-9-23 Dashing Dogs Commercial Kennel

Application of Debra Hall, Applicant, and Carrollton Coves Shoppes, LLC, Property Owner, for a Conditional Use Permit to Establish a Commercial Kennel on Property Located at 15042 (Suites K and L) Carrollton Boulevard

B. Ordinance Amendments

Ordinance to Amend and Reenact Chapter 3 - Animals and Fowl, Chapter 7 - Fire Protection, Chapter 11 - Motor Vehicles and Traffic, and Chapter 15 - Taxation of the Isle of Wight County Code

13. County Administrator's Report

A. Board of Supervisors' Retreat

Discussion of the Board's Annual Retreat

B. Pharmacy Schedules

Discussion Regarding Operating Hours of Area Pharmacies

C. Matters for the Board's Information

14. Unfinished / Old Business

A. Carver Solar Energy Generation Facility Conditional Use Permit Request

Application of Carver Solar I, LLC (CUP-6-22), Applicant, and Carter R. Clements, Joyce G. Clements, Travis W. Williams, Lewis Clarence Lee Trust (Clarence Lee Lewis, Trustee), Joshua Pretlow, Jr., Garrison Farm Solar LLC, Delman Lew Carr Trust (Delman Lew Carr, Trustee), Chester G. Carr Trust (Glenn and Susan S. Carr, Trustees), Helene Johnson Hobbs, Joest Properties, LLC, Scott L. Thomason, Carla A. Thomason, James K. Edwards, Marsha F. Edwards, Cobb Land Limited Partnership, Troy L. Robinson, and Margaret F. Robinson, Property Owners, for a Conditional Use Permit to Establish a Major Utility Service, Specifically a 71 MW Utility-Scale Solar Energy Facility and Substation, on 637 Acres Located on Yellow Hammer Road (Rte. 645), Windsor Boulevard (Rte.460), Winston Drive (Rte. 639), Cut Thru Road (Rte. 638), Ecella Road (Rte. 639), Barrett Town Road (Rte. 641), Mill Creek Drive (Rte. 638), and Antioch Road (Rte. 657) in the Rural Agricultural Conservation, Conditional General Commercial, and Conditional Rural Residential Zoning Districts

B. Carver Solar Energy Generation Facility Siting Agreement

Consideration of a Siting Agreement for the Carver Solar Energy Generation Project

C. CBPA-2-23 Chesapeake Bay Preservation Area Exception for Gayle

Application (CBPA-2-23) of Michael and Katherine Gayle for a

Chesapeake Bay Preservation Area (CBPA) Ordinance Exception for an After-the-Fact Approval of a Platform to Store Small Boats and Equipment with a Seating Area in the Fifty-Foot Seaward Section of the Resource Protection Area (RPA) Buffer at 1 Eagle Nest Lane.

15. New Business

    A. EXC-9-23 Bur IWIP NDSO Exception

       Application of Bur Investment LLC, applicant and owner, for an Exception to Section 6-2010.A.1,2 and 3 of the Newport Development Service Overlay (NDSO) District Regulations in the Zoning Ordinance for the Property Located on Commerce Lane with Tax Map Number 42-06-006 for an Exception to the NDSO Design Standards for Building Façades, Exterior Walls, Windows and Building Materials

    B. ZA-5-23 International Auto Auction Conditional Zoning Amendment

       Application of Advance Construction Development, LLC, Applicant and Owner, for an Amendment to Conditional Zoning to Add Parcel 42-01-007D to the Previously Approved Conditional Rezoning Application

    C. Budget Amendment - Schools Budget Shortfall

       Resolution to Amend the Budget and Appropriate Funds to Address the County Schools Operating Budget Shortfall for FY2022-2023

16. Adjournment

ISSUE:

Resolution to Amend the Budget and Appropriate Funding for Sheriff's Command Bus Improvements ($11,100)

BACKGROUND:

The Isle of Wight County Sheriff's Office sold a 1994 military surplus Humvee for $11,100. The Sheriff's Office can utilize monies from the sale of surplus equipment and is requesting that these funds be used towards the continued upgrades to the mobile command bus.

BUDGETARY IMPACT:

The general fund Sheriff capital outlay line will increase by $11,100.

RECOMMENDATION:

Adopt the attached resolution to appropriate grant payment**.**

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	7/14/2023

RESOLUTION TO AMEND THE FY 2023-2024 OPERATING BUDGET AND APPROPRIATE FUNDING FOR SHERIFF COMMAND BUS IMPROVEMENTS

WHEREAS, the Board of Supervisors of the County of Isle of Wight, Virginia, recommends an amendment to the FY 2023-2024 Budget for $11,100 from the sale of Sheriff's surplus equipment; and,

WHEREAS, the Board of Supervisors needs to appropriate $11,100 to the FY 2023-2024 Sheriff's Budget capital outlay line for command bus improvements.

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of Isle of Wight County, Virginia, that the FY 2023-2024 Budget is hereby amended and funds appropriated in the amount of $11,100 from the sale of surplus equipment for improvements to the Sheriff's command bus.

BE IT FURTHER RESOLVED that the County Administrator of Isle of Wight County, Virginia, is authorized to make the appropriate accounting adjustments and to do all things necessary to give this resolution effect.

Adopted this 17th day of August 2023.

_____
William M. McCarty, Sr. Chairman

_____
Carey Mills Storm, Clerk

Approved as to Form:

_____
Robert W. Jones Jr., County Attorney

ISSUE:

Resolution to Amend the Budget and Appropriate 2023 Summer Regional Governor's School Grant Funds to the Instructional Category in the Schools' FY2023-24 Budget ($16,352)

BACKGROUND:

The Commonwealth of Virginia recently approved a 2023 Summer Regional Governor's School award allocation in the amount of $16,352 for Isle of Wight County Schools.

The Isle of Wight County School Board is requesting that the grant funds be appropriated to the Instructional Category in the Schools' FY2023-24 budget.

BUDGETARY IMPACT:

Appropriation of the funds will increase the Instructional Category of the Schools' FY2023-24 budget by $16,352.

RECOMMENDATION:

Adopt a resolution to amend the budget and appropriate grant funds to the Instructional Category in the Schools' FY2023-24 budget.

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	7/26/2023

RESOLUTION TO AMEND THE FY 2023-24 OPERATING BUDGET AND APPROPRIATE GRANT FUNDS TO THE SCHOOLS FY2023-24 OPERATING BUDGET

WHEREAS, the Board of Supervisors appropriated funding by category for the Isle of Wight County School Board for the 2023-2024 school year; and,

WHEREAS, the Commonwealth of Virginia approved a 2023 Summer Regional Governor's School award allocation in the amount of $16,352 for Isle of Wight County Schools; and,

WHEREAS, the School Board is requesting that the grant funds be appropriated to the Instructional Category in the Schools' FY2023-24 budget.

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of Isle of Wight County, Virginia, that the FY 2023-24 budget is hereby amended and grant funds in the amount of $16,352, or as much as shall be received, be appropriated to the Instructional Category in the Schools' FY2023-24 budget.

BE IT FURTHER RESOLVED that the County Administrator of Isle of Wight County, Virginia is authorized to make the appropriate accounting adjustments and to do all things necessary to give this resolution effect.

Adopted this 17th day of August, 2023.

_____
William M. McCarty, Sr., Chairman

_____
Carey Mills Storm, Clerk

Approved as to Form:

_____
Robert W. Jones Jr., County Attorney

ISSUE:

Consideration of Adoption of the Bylaws for the Commission for Adults with Disabilities

BACKGROUND:

The Board has previously authorized the creation of a Commission for Adults with Disabilities. In this regard, the Adults with Disabilities Task Force has drafted bylaws for the Board's consideration.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Adopt the bylaws for the Commission for Adults with Disabilities.

ATTACHMENTS:

Description	Type	Upload Date
Commission for Adults with Disabilities By-laws	Backup Material	8/9/2023



ISLE OF WIGHT COUNTY
COMMISSION FOR ADULTS WITH DISABILITIES
BY-LAWS

ADOPTED AUGUST 17, 2023

BY-LAWS OF THE ISLE OF WIGHT COUNTY
COMMISSION FOR ADULTS WITH DISABILITIES

ARTICLE I - NAME

The name of this organization shall be the Isle of Wight County Commission for Adults with Disabilities.

ARTICLE II - PURPOSE

The purpose of this Commission is to promote and assist with development of resources and activities for Adults with Disabilities and their caretakers within Isle of Wight County and to share information with neighboring communities.

ARTICLE III - POWERS AND DUTIES

This Commission is empowered to do the following:

1. Research, understand, evaluate, and advocate local issues, challenges and opportunities encountered by adults with disabilities, guardians, and caregivers.
2. Determine and assess resources available to meet the needs of adults with disabilities, guardians, and caregivers.
3. Cooperate with other local, state, and national committees, agencies, and/or organizations in the development of programs designed to address the unmet needs of adults with disabilities, guardians, and caregivers.
4. Encourage public awareness of adult disability issues.
5. Review and make recommendations about policies, procedures, services and activities of departments and agencies of Isle of Wight County as they affect adults with disabilities, guardians, and caregivers.
6. Take such action as the Board of Supervisors considers appropriate to ensure the equal access status of adults with disabilities.
7. Provide information and advice to individuals, businesses, organizations, and public agencies in all matters pertaining to adults with disabilities.

This Commission shall perform such functions as it may deem necessary to accomplish its purposes, powers, and duties in accordance with the desires of the Isle of Wight County Board of Supervisors.

ARTICLE IV – MEMBERSHIP

Section 1. The Commission shall consist of ten (10) members appointed by the Board of supervisors of Isle of Wight with two (2) members from each election district.

Section 2. Appointments shall reflect, whenever possible, the diversity of the community of adults with disabilities including the sensory impaired, and persons with physical, developmental, and emotional disabilities.

Section 3. Membership shall also include ex officio representatives invited to serve as voting members from several types of organizations that provide services to adults with disabilities. Heads of Isle of Wight County agencies may designate staff to vote for them in their absence.

Section 4. In addition to the regular membership, the following list of resource persons who are willing to provide consultant services to the Commission when needed will be developed: 1) architecture; 2) business; 3) attorney; 4) special education; 5) recreation and 6) public works. These resource consultants will be non-voting members.

Section 5. Commission members shall serve at the pleasure of the Board of Supervisors, in accordance with Section 15.2-1411 of the Code of Virginia (1950, as amended), and may be removed from office at any time and for any reason as deemed necessary and/or appropriate by the Board of Supervisors.

ARTICLE V – OFFICERS AND THEIR DUTIES

Section 1. The officers of this Commission shall consist of a Chair, a Vice-Chair, and a Secretary henceforth the Executive Committee. Officers shall be elected by the Commission and serve at the pleasure of the Commission.

Section 2. A Liaison to the Commission shall be provided by the Department of Parks and Recreation. The Liaison shall collect and maintain records of the Commission and establish communications with the County Departments.

Section 3. The duties of the Chair shall be:

A. To develop and distribute the meeting agenda in coordination with other officers.

B. To preside over all meetings of the Commission.

C. To appoint committees deemed necessary to accomplish the duties of the Commission.

D. To perform such other duties as determined by the Commission and/or the Board of Supervisors.

Section 4. The duties of the Vice-Chair shall be:

A. To perform the duties of the Chair in his/her absence.

B. To perform such other duties as assigned by the Commission.

Section 5. The duties of the Secretary shall be to work with the Liaison to accomplish the following duties:

A. To transcribe minutes of all Commission meetings and to transmit them to the members of the Commission in their desired format.

B. To prepare and transmit correspondence from the Commission.

C. To notify members of the Commission electronically of all meetings.

D. To establish correspondence with the Board of Supervisors.

E. To make arrangements for reasonable accommodations for commissioners and members of the public upon request.

ARTICLE VI – ELECTION AND TERM OF OFFICERS

Section 1. The Chair shall appoint a nominating committee in November of each year with elections to be held at the December meeting.

Section 2. Elections shall be by ballot if there is more than one nominee for the same office. A quorum must be present to constitute an election.

Section 3. Any vacancies occurring in the offices shall be filled by a special election.

ARTICLE VII – TERM OF MEMBERS: VACANCIES

Section 1. The members of the Commission shall be appointed for a (3) three years. In the case of an individual commissioner who demonstrates substantial interest and participation in the activities of the Commission, the Board of Supervisors may, after consulting with the Chair, Vice-Chair, and Director of the Department of Parks and Recreation, re-appoint a member to a second three-year term. The members of the Commission shall in no case be appointed for more than six (6) years. A former commissioner may reapply for membership after a minimum of one year.

Section 2. In the event of a vacancy, the Chair and Vice-Chair shall consult first with the Commission and secondly with the Director of the Parks and Recreation to review the waiting list of candidates and together with the Commission's consent, advise the Board of Supervisors who would best meet the needs of the Commission.

Section 3. Vacancies that occur before the end of a member's three-year term shall be filled by an appointee to complete the unexpired term. After fulfilling the unexpired term, the appointee shall be eligible for reappointment for no more than two full terms.

ARTICLE VIII – RESPONSIBILITIES OF MEMBERS

Each person who is appointed to this Commission accepts the following responsibilities as part of his/her duties as a member:

1. To attend all meetings of the Commission.

2. To accept and participate in committee assignments made by the Chair.

ARTICLE IX – MEETINGS

Section 1. The Commission shall meet monthly on the first Monday of each month at 4:00 p.m. in the Board of Supervisors Room, Isle of Wight Courthouse, Isle of Wight, Virginia, provided that if this should be a legal holiday, the meeting shall be held at the same time and place on the first succeeding day not a holiday. Each member shall be notified of each regular meeting at least five (5) days prior to the meeting by written agenda prepared by the Secretary to the Commission.

Section 2. Committees shall meet at a time and location as they deem necessary to accomplish their respective missions.

Section 3. Special meetings of the Commission may be called by the Chair as he/she deems necessary. The Chair shall call a special meeting of the Commission at the written request of any two (2) members of the Commission. A reasonable effort will be made to notify all Commission members when a special meeting is called.

Section 4. Whenever there is no business of the Commission, the Chairman may dispense with the regular meeting by giving notice to all members at least two (2) days prior to the time set for the meeting, providing that the Commission shall meet at least every two (2) months. The need to cancel a scheduled meeting in the event of inclement weather for the safety and well-being of the Commission members, staff and the public, may be determined by the Chairman.

Section 4. Any citizen or group of citizens may request a special meeting of the Commission by making a written request to the Chair who shall either call a special meeting or hold the request for consideration at the full Commission as he/she deems proper.

Section 5. Written records of all proceedings of meetings shall be kept and made a public record.

Section 6. The conduct of meetings shall follow a pre-published agenda which shall be prepared and disseminated to

Commission members in their desired format at least one (1) week before a scheduled meeting.

Section 7. The order of business at regular meetings shall be as follows:

1. Call to Order
2. Roll Call and Determination of Quorum
3. Approval of Agenda
4. Consideration of Minutes
5. Unfinished/Old Business
6. Committee and Reports including Chairman
7. Individual Commissioner Reports
8. County Staff Comments
9. Citizen Comments
10. New Business
11. Adjournment

ARTICLE X – ATTENDANCE

Each member is required to attend all meetings of this Commission. Any member who is absent from more than four (4) meetings in a year will be sent a letter from the Chair of the Commission recognizing the member's absence and asking if that member would like to be relieved of their membership on the Commission. Each member has the responsibility to notify the Department of Parks and Recreation liaison when he/she is unable to attend a meeting. Failure to do so will result in an unexcused absence.

ARTICLE XI – QUORUM

Section 1. A majority of the members of this Commission shall constitute a quorum for the transaction of any business.

Section 2. The affirmative vote of a majority of those members present and voting shall be required for the exercise of powers or functions of this Commission.

Section 3. The Chair shall vote only in case of a tie.

ARTICLE XII – ORDER OF BUSINESS

Section 1. The Order of Business at all regular and special meetings shall be determined by the Chair and approved or amended as an agenda by the Commission at the beginning of each meeting.

Section 2. A portion of each meeting shall be set aside for "Other Business" and "Citizen Comments." This shall be a time when individual citizens, or groups may express themselves on topics that may come under the purview of the Commission. Time for Citizen comments is limited to five (5) minutes.

Section 3. All business of the Commission shall be conducted in accordance with the enabling legislation and these by-laws.

Section 4. The procedural principles set forth in Robert's Rules of Order shall be followed for the purposes of conducting the business of the Commission. The Chairman shall decide all points of order in accordance with those same principles.

ARTICLE XIII – AMENDMENT OF BY-LAWS

Section 1. Notice of any proposed changes in these by-laws must be submitted in writing to members two weeks prior to the meeting during which they will be considered.

Section 2. These by-laws may be amended at any meeting of the Commission by a two-thirds vote of those present and voting if that number constitutes a quorum.

ARTICLE XIV – SUPPORT SERVICES

Professional staff support for the Commission shall be provided by the Department of Parks and Recreation.

Submitted to the Isle of Wight County Board of Supervisors and approved this 17th day of August 2023.

William M. McCarty, Chairman

Carey Mills Storm, Clerk

Approved as to form:

Robert W. Jones, Jr., County Attorney

ISSUE:

Resolution to Amend Chapter 1: Personnel, Article XI, Sections 11.8 and 11.9 of the County Policy Manual

BACKGROUND:

Periodically, the County Policy Manual requires revision. In this regard, staff has drafted revisions to the Personnel Sections of Policy Manual that prohibit animals being brought into the workplace by employees without express written authorization to do so. Exceptions would be employees who require the help of a service animal to perform the essential functions of their job.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Adopt a resolution to amend the County Policy Manual.

ATTACHMENTS:

Description	Type	Upload Date
Resolution	Resolution	8/15/2023

RESOLUTION TO AMEND CHAPTER 1: PERSONNEL, ARTICLE XI, SECTIONS 11.8 and 11.9 OF THE COUNTY POLICY MANUAL

WHEREAS, the County is responsible for assuring the health and safety of all employees.; and

WHEREAS, animals may pose a threat of infection and may cause allergic reactions in employees and some employees may feel threatened or be distracted by the presence of animals, particularly dogs in the workplace. In addition, the County wishes to prevent pets from fouling the office space or damaging company property.

NOW, THEREFORE, BE IT RESOLVED that Chapter 1: Personnel, Article V, Sections 5.12 and 5.15 of the County Policy Manual are hereby amended as follows:

Chapter 1: Personnel

ARTICLE XI - Miscellaneous Policies and Regulations

(Revised April 7, 2005, November 17, 2005, May 18, 2006, October 16, 2006, September 4, 2008, May 21, 2015, September 17, 2015, July 1, 2020, August 17, 2023)

Section 11.8 – Animals in the Workplace

Employees are not allowed to bring animals into any County building and/or property, without expressed written authorization from the County Administrator, unless otherwise required to do so by their position.

An employee who requires the help of a service animal as defined by the Americans with Disability Act (ADA) and Americans with Disabilities Act Amendments Act (ADAAA) will be permitted to bring a service animal to their workplace, provided that the animal's presence does not create a danger to others and does not impose an undue hardship upon the County. Employees and applicants with disabilities requesting reasonable accommodations to perform essential job functions should request such through the Human Resources Department.

Section 11.~~8~~ 9- Saving Clause

If any section, sentence, clause of phrase of this ordinance shall be held, for any reason, to be inoperative, void or invalid, the validity of the remaining portions of this ordinance shall not be affected thereby, it being the intention of the Board of Supervisors in adopting this ordinance that no portion thereof or provision herein, shall become inoperative or fail by reason of invalidity of any other portion or provision and the Board hereby declares that it would have severally passed and adopted the provisions contained herein, separately and apart one from the other.

Adopted this 17th day of August, 2023.

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William M. McCarty, Sr, Chairman

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Carey Mills Storm, Clerk

Approved as to form:

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Robert W. Jones, Jr., County Attorney

ISSUE:

- June 1, 2023 Work Session Minutes

BACKGROUND:

The above-noted minutes are offered for review and adoption by the Board.

BUDGETARY IMPACT:

None

RECOMMENDATION:

Adopt the following sets of minutes:

. June 1, 2023 Work Session Minutes

ATTACHMENTS:

Description	Type	Upload Date
June 1, 2023 Work Session Minutes	Cover Memo	8/10/2023

WORK SESSION OF THE ISLE OF WIGHT COUNTY BOARD OF SUPERVISORS HELD IN THE ROBERT C. CLAUD, SR. BOARD ROOM OF THE ISLE OF WIGHT COUNTY COURTHOUSE LOCATED AT 17090 MONUMENT CIRCLE, ISLE OF WIGHT, VIRGINIA ON THURSDAY, THE FIRST DAY OF JUNE IN THE YEAR TWO THOUSAND AND TWENTY-THREE

BOARD MEMBERS PRESENT:
William M. McCarty, District 2, Chairman
Joel C. Acree, District 4, Vice-Chairman
Richard L. Grice, District 1
Don G. Rosie, II, District 5
Rudolph Jefferson, District 3

STAFF MEMBERS PRESENT:
Randy R. Keaton, County Administrator
Donald T. Robertson, Assistant County Administrator
Robert W. Jones, Jr., County Attorney
Carey Mills Storm, Clerk

CALL TO ORDER

Chairman McCarty called the work session to order at 6:00 p.m.

INVOCATION

Gerald H. Gwaltney, Commissioner of Revenue, delivered the invocation and led the Pledge of Allegiance.

PUBLIC HEARING

Chairman McCarty called for a public hearing on the following Ordinance to Set the Tax Rate.

County Attorney Jones advised that the public hearing is on the effective tax rate increase which is necessary because the increase is greater than 1% due to the recent real estate reassessment and to adopt the County's tax rates with the exception of the personal property which was set earlier this year.

Chairman McCarty opened the public hearing and called for persons to speak in favor of or in opposition to the proposed Ordinance.

Gerald H. Gwaltney, Commissioner of Revenue, showed a PowerPoint presentation providing the final reassessment results which revealed a 34% increase in residential properties; a 26% increase in multi-family properties; and, an 11% increase in commercial properties. His presentation concluded with a review of the tax relief program for the elderly and disabled.

Herb DeGroft of District 5 spoke in favor of tax relief for the elderly and disabled and of the Board reducing the tax rate from $.85 to $.71. He further requested the Board to consider reducing the tax rate even further to $.66.

Ralph Caldwell of Woodcreek Lane requested the tax rate be reduced to $.66 range.

Dean Jones of Walters notified the Board that his property experienced an increase of 58%.

Andrea Margrave of the Newport District referred to the slide shown by the Commissioner of Revenue illustrating that the County has experienced a 28%+ increase in its tax base and suggested that it be used to offset the tax rate.

Chairman McCarty closed the public hearing.

The following budgetary achievements by the County were noted: No tax rate change in the last eight years; the last tax rate decrease was in FY2008; the utility subsidy was down $1.7 million since FY2016; there has been a $10 million savings since 2017; and $400 thousand was returned to the local economy by way of COVID gift certificates.

Supervisor Grice motioned to adopt the following Ordinance to Set the Tax Rates with $.71 for Real Estate and increase the Machinery tax rate to $1.95 with all other taxes remaining flat:

AN ORDINANCE TO IMPOSE TAX RATES FOR ISLE OF
WIGHT COUNTY, VIRGINIA FOR

FISCAL YEAR JULY 1, 2023 THROUGH JUNE 30, 2024

BE IT AND IT IS HEREBY ORDAINED by the Board of Supervisors of the County of Isle of Wight, Virginia, to-wit:

Section 1: That there is hereby levied for the fiscal year beginning July 1, 2023, a tax of $0.71 per one hundred dollars of assessed valuation on all taxable real estate, and all real and personal property of public service corporations in accordance with Section 58.1-2606 of the Code of Virginia (1950, as amended).

Section 2: That there is hereby levied for the fiscal year beginning July 1, 2023, a tax of $1.95 per one hundred dollars of assessed valuation on machinery and tools used in businesses as defined in Section 58.1-3507 of the Code of Virginia (1950, as amended).

Section 3: That there is hereby levied for the fiscal year beginning July 1, 2023, a tax of $1.00 per one hundred dollars of assessed valuation of boats, watercraft and aircraft as defined in Section 58.1-3606 of the Code of Virginia (1950, as amended).

Section 4: That there is hereby levied for the fiscal year beginning July 1, 2023, a tax of $0.32 per one hundred dollars of assessed valuation on watercraft, including vessels and ships, weighing five tons or more, excluding privately owned pleasure boats and watercraft used for recreational purposes only.

Section 5: That there is hereby levied for the fiscal year beginning July 1, 2023, a tax of one-half (1/2) of one percent (1%) of the gross receipts on telephone and telegraph companies, water companies, heat, light and power companies, except electric suppliers, gas utilities and gas

suppliers as defined in Section 58.1-400.2 of the Code of Virginia (1950, as amended) and pipeline distribution companies as defined in Section 58.1-2600 of said Code, accruing from sales to the ultimate consumer in the County of Isle of Wight, Virginia, pursuant to Section 58.1-3731 of the Code of Virginia (1950, as amended), however, in the case of telephone companies, charges for long distance telephone calls shall not be included in gross receipts for purposes of license taxation.

BE IT FURTHER ORDAINED that this Ordinance be entered in the Minutes of this Board of Supervisors and that a copy thereof by the Clerk of this Board, be furnished to the Treasurer of this County.

The motion was adopted unanimously (5-0) with Supervisors McCarty, Acree, Grice, Jefferson and Rosie voting in favor of the motion and no Supervisors voting against the motion.

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The Board took a short break and returned to open session.

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COUNTY ADMINISTRATOR'S REPORT

Under the County Administrator's report, under the subject of Ordinance Amendments to the Ordinance to the Isle of Wight Code of Ordinances

Following an overview of the County's current Ordinance by County Attorney Jones regarding the discharging of firearms, Chairman McCarty requested information related to who will be inspecting berms and how they are inspected and monitored. He requested the Board members to contact the County Attorney with their comments and questions and that, in the meantime, the County Attorney continue his research.

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Following an overview of current prohibited uses and types of residential use in the Isle of Wight County Zoning Ordinance under restrictions on recreational vehicles, County Attorney Jones advised that the act of visiting is not determined as a residence, but at what point it stops being temporary and becomes permanent needs to be defined. He advised there is no prohibition of a homeowner camping with tents on their property, but running a campground without the necessary permits is not permitted. Short-term and temporary needs to be defined and he offered to provide the Board with the definitions of RVs and mobile homes and how tiny homes are classified. In the meantime, Board members should contact the County Attorney with any comments/questions.

Regarding Airbnbs, County Attorney Jones provided a PowerPoint presentation illustrating the language proposed in the past for short-term rentals and the language which has been added. It was his recommendation that because it has been such a long time since the matter was last discussed that the proper recourse would be to return the matter to the Planning Commission for public hearing with the amendments to include any additional comments by the Board. He further showed the Board proposed language regarding livestock and dogs running at large under Animal Control.

The potential need to hire additional employees to manage Airbnbs was brought up and the Board was advised that Airbnbs can be managed within current staffing levels. There was general discussion regarding the safety of renters; law enforcement will need to keep a closer eye on those properties; the creation of a grant to assist with the cost of a business license, the cost of a zoning permit and the cost to annually check it. Staff advised that it could be structured so that a one-time zoning permit is charged and a renewal and inspection would be done every year thereafter. The Board was further apprised that there is not language prohibiting camping on private property. Board members were requested to contact the County Attorney with any comments.

Supervisor Jefferson recommended that notifications to adjoining neighbors be a requirement associated with Airbnbs.

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Vice-Chairman Acree moved to appoint Gibby Dowdy to serve as the Town of Smithfield's representative on the Energy Task Force. The motion was adopted unanimously (5-0) with Supervisors McCarty, Acree, Grice, Jefferson and Rosie voting in favor of the motion and no Supervisors voting against the motion.

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Supervisor Grice notified the Board that the County facility being provided to Camp Community College at no charge, to include utilities, is not being utilized. He reported that a meeting had been recently held between representatives of Camp Community College and County staff regarding how the facility is being utilized and he recommended that the Board direct the County Attorney to provide notice of termination.

Supervisor Grice moved that County Attorney Jones be instructed to provide notice to the President and Chairman of the Board of Directors of Camp Community College of termination of the lease agreement, effective June 30, 2024. The motion was adopted unanimously (5-0) with Supervisors McCarty, Acree, Grice, Jefferson and Rosie voting in favor of the motion and no Supervisors voting against the motion.

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County Administrator Keaton notified the Board of a meeting with WaWa representatives at 12:30 p.m. to 1:30 p.m. on Monday, June 4, 2023 in the County Administrator's Conference Room. He was requested to send notice of said meeting to the Board members.

ADJOURNMENT

At 9:05 p.m., Chairman McCarty declared the work session adjourned.

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William M. McCarty, Sr., Chairman

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Carey Mills Storm, Clerk

BACKGROUND:

The Board of Supervisors has previously directed that an opportunity be provided for monthly status briefings from Board members who serve as representatives on various regional committees and authorities on behalf of the County.

BUDGETARY IMPACT:

None

RECOMMENDATION:

Receive the report.

ATTACHMENTS:

Description	Type	Upload Date
Regional Reports	Cover Memo	8/3/2023

2023

BOARD OF SUPERVISORS'

REGIONAL ORGANIZATIONS (BY MEMBER)

ACREE

- *Hampton Roads Planning District Commission*
- *Western Tidewater Water Authority*
- *Western Tidewater Community Transportation Collaborative*

GRICE

- *Eastern Virginia Regional Industrial Facility Authority*
- *Hampton Roads Alliance*
- *Hampton Roads Workforce Council*
- *Western Tidewater Water Authority*

JEFFERSON

- *Western Tidewater Regional Jail*

McCARTY

- *Hampton Roads Transportation Advisory Committee*
- *Hampton Roads Transportation Planning Organization*
- *Western Tidewater Regional Jail*

ROSIE

- *Hampton Roads Military Federal Facilities Alliance*

KEATON

- *Hampton Roads Planning District Commission*
- *Hampton Roads Transportation Planning Organization*
- *Southeastern Public Service Authority*
- *Western Tidewater Regional Jail*
- *Western Tidewater Water Authority*

2023
BOARD OF SUPERVISORS'
REGIONAL ORGANIZATIONS (BY ORGANIZATION)

Eastern Virginia Regional Industrial Facility Authority	*Grice*
Hampton Roads Alliance	*Grice*
Hampton Roads Military & Federal Facilities Alliance:	*Rosie*
Hampton Roads Planning District Commission:	*Acree* *Keaton*
Hampton Roads Transportation Accountability Committee:	*McCarty*
Hampton Roads Transportation Planning Organization:	*McCarty* *Keaton*
Hampton Roads Workforce Council	*Grice*
Southeastern Public Service Authority	*Keaton* *Etheridge - (Alternate)*
Western Tidewater Community Transportation Collaborative	*Acree*
Western Tidewater Regional Jail:	*Jefferson* *McCarty* *Keaton*
Western Tidewater Water Authority:	*Grice* *Acree* *Keaton*

BACKGROUND:

Board members will consider and make appointments of individuals to various local and region organizations as noted on the Appointments Page.

BUDGETARY IMPACT:

None

RECOMMENDATION:

Appoint individuals to various local and region organizations as noted on the Appointments Page.

ATTACHMENTS:

Description	Type	Upload Date
Blackwater Regional Library Board - Attachment	Cover Memo	5/25/2023
Appointments Page	Cover Memo	8/17/2023

Carey Mills Storm

From: Carey Mills Storm
Sent: Tuesday, May 23, 2023 1:36 PM
To: 'Ben Neal'
Subject: RE: Library Board Re-appointment

Great Ben. I will pass your information along to the Board.

Carey Mills Storm
Clerk to the Board of Supervisors
Isle of Wight County
Post Office Box 80
Isle of Wight, Virginia 23397
(757) 365-6255
cstorm@isleofwightus.net

From: Ben Neal <bneal@blackwaterlib.org>
Sent: Tuesday, May 23, 2023 11:47 AM
To: Carey Mills Storm <cstorm@isleofwightus.net>
Subject: RE: Library Board Re-appointment

Caution: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi, again,

Other than Ms. Rickmond (whose name I sent you below...I don't know her but my departing board member endorses her), the other name I can think off the top of my head is Kathy Lippard, who lives in Smithfield , is an avid library user, and expressed interest in the library board a few years ago but I think at the time there wasn't a vacancy. I can't speak to whether she would still be interested, but if Ms. Rickmond isn't a fit for the board, Ms. Lippard might be worth giving a call.

Kathy Lippard, 17177 Days Point Road, Smithfield. kblmar@aol.com 757-357-7776

Sandi Rickmond
24153 Butler Ave
Windsor
757-897-2265

Ben Neal
Library Director
Blackwater Regional Library
22511 Main Street

blackwater regional library

Franklin Isle of Wight Southampton County Library System

www.blackwaterlib.org

Mr. Randy Keaton
Isle of Wight County Administrator
P.O. Box 80
Isle of Wight, VA 23397

March 22, 2023

Re: Board Appointment

Dear Mr. Keaton,

Isle of Wight County member of the Blackwater Regional Library Board of Trustees, Ms. Cathy Funk, will reach the end of her term on June 30, 2023. Ms. Funk has served two full terms on the Board and we appreciate her efforts on behalf of the Library.

We respectfully request you appoint a new trustee to serve on our board. This will be a new appointee for a term of four years, expiring on June 30, 2027.

Please make sure the "new member" is aware that the Board of Trustees meets nine times a year on the third Wednesday of each month at 3:00 p.m. The meeting usually lasts for approximately two hours. The Board usually meets the Franklin branch. Trustees are also asked to be a member of a committee and these committees usually meet outside of the normal board meeting to discuss business matters in order to expedite regular board meeting time. This could mean a commitment of an additional one to two hours per month.

Enclosed is a general description of duties that can be expected of appointed members for reference.

We appreciate your attention to this matter. Thank you for your continued support of the library and its programs.

Very Best Regards,

Ben Neal
Library Director
757-653-0298 ext. 303
bneal@blackwaterlib.org

Board of Trustees

Board Mission and Vision

A public library board has the primary responsibility for the success of the library, both now and in the future. Trustees have a legal responsibility to successfully maintain a public, nonsectarian library for all residents in the library's service area.

Expectations of a Board of Trustees:

- Attend meetings regularly
- Participate in a Board orientation
- Share skills on committees
- Understand the community and its needs
- Exercise discretion and respect confidentiality outside board meetings
- Avoid conflicts of interest and put personal agendas aside when making decisions
- Actively support the implementation of board decisions
- Have an open mind and respect differing viewpoints
- Respect diversity
- Focus on a secure future for the library

As a governing body, the Board of Trustees:

Advocates for the library within the community by:

- Seeking funding opportunities
- Supporting planned programs of public relations
- Meeting with local officials to communicate library issues
- Representing the library patrons' concerns and their perspectives

Develops a strategic plan that:

- Guides and articulates the goals and objectives to be achieved
- Determines sound decision-making and priorities
- Measures the quality and effectiveness of services and programs
- Reflects contemporary library practices and future trends

Nurtures fiscal responsibility through:

- The preparing of a budget
- Scheduled monitoring of that budget and other financial progress reports
- Pursued opportunities, such as grants, campaign development, and other funds
- Communication of fiscal needs with supporting agencies
- Careful investments

Crafts policies that:

- Comply with all laws
- Form a framework of acceptable expected practices, behaviors, and procedures
- Support the mission, goals, and objectives of the library
- Outline personnel issues
- Describe facilities use and access
- Are adopted, enforced, and updated

Board of Trustees

Ensures qualified leadership by:

- Hiring a library director who manages the day-to-day operations
- Evaluating the director annually

BOARDS/COMMISSIONS/COMMITTEES

Boards/Commissions/Committees	Appointees	Contact	District	Expiration	
Blackwater Regional Library Board	Replacement for Catherine Funk (See Attached)	757-562-4931	At-Large Member	June	2023
Chamber of Commerce	Don Robertson, Ex-officio			July	2023
Commission on Aging	Maggie Richards - Resigned	757-371-9010	Windsor/District 4	Dec.	2023
Historical Architectural Review Com.	W. Lee Duncan	757-356-1112	Hardy/District 3	Jan.	2023
Social Services Board	Reginia Joyner	757-478-6381	Windsor/District 4	June	2023
Wetlands Board	Replacement for Wilson Holland		Windsor/District 4	Feb.	2023

ISSUE:

Presentation of the FY2023-24 Budget Book

BACKGROUND:

Staff will present the finalized FY2023-24 budget book for the Board's information and reference.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

For the Board's information.

ISSUE:

County Fair Spring Events Update

BACKGROUND:

Danny Byrum, County Fair Committee Chairman, and Parks and Recreation staff will update the Board regarding the activities planned for this year's County Fair.

Everyone is encouraged to attend the Isle of Wight County Fair and related events to be held at the Joel C. Bradshaw Fairgrounds September 13-17, 2023.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

For the Board's information.

ISSUE:

Application of Debra Hall, Applicant, and Carrollton Coves Shoppes, LLC, Property Owner, for a Conditional Use Permit to Establish a Commercial Kennel on Property Located at 15042 (Suites K and L) Carrollton Boulevard

BACKGROUND:

Debra Hall, applicant, and Carrollton Coves Shoppes, LLC, property owner, submitted an application for a Conditional Use Permit (CUP) to establish a commercial kennel on property located at 15042 (Suites K and L) Carrollton Boulevard, identified as tax map number 34-07-000B.

The project site is currently being used as a commercial shopping center and the parcel lies in the General Commercial (GC) zoning district.

This application was reviewed using the criteria found in section 1-1017 of the Zoning Ordinance. The review criteria can be found in full in the attached Planning Commission staff report. The application meets all criteria and the use is consistent with the future recommended Business and Employment (BE) land use.

A full analysis of the application is included in the attached Planning Commission staff report.

BUDGETARY IMPACT:

None

RECOMMENDATION:

The Planning Commission recommended approval of the application with staff recommended conditions, in addition to a condition requiring approval and inspection of the facility by the Isle of Wight County Animal Shelter staff during site plan review, by a vote of 9-0. Staff recommends approval of the CUP with the following conditions: 1. No more than five animals are permitted in the outdoor exercise space at one time. 2. No more than sixty animals may be boarded overnight, of which no more than fifty may be dogs. 3. The commercial kennel use only applies to Suites K and L. The applicant must obtain approval from the Zoning Administrator prior to moving into any other space within the parcel. 4. Animal feces should be removed from the parking lot throughout the day and a

bag dispenser shall be provided near the parking lot.

ATTACHMENTS:

Description	Type	Upload Date
PC Staff Report	Backup Material	8/2/2023
Location Map	Backup Material	7/14/2023
Location Closeup Map	Backup Material	7/14/2023
Zoning Map	Backup Material	7/14/2023
Land Use Map	Backup Material	7/14/2023
Site Images	Backup Material	7/14/2023
Concept Plan	Backup Material	7/14/2023
Application	Backup Material	7/14/2023
Narrative	Backup Material	7/14/2023
Ordinance	Ordinance	8/9/2023

PLANNING REPORT

APPLICATION:

Application CUP-9-23 of Debra Hall, applicant, and Carrollton Coves Shoppes, LLC, property owner, for a conditional use permit to establish a commercial kennel on property located at 15042 (Suites K and L) Carrollton Boulevard, identified as tax map number 34-07-000B

ELECTION DISTRICT:

District 4

LOCATION:

The subject property is located at 15042 Carrollton Boulevard (Route 17). The site is approximately eight hundred (800) feet west of the intersection of Ashby Way (State Rte. 1960) and approximately one half mile east of the intersection of Deep Bottom Drive (State Rte. 32) and Channell Way (State Rte. 662). Carrollton Volunteer Fire Department is located on the adjacent parcel to the west and Ashby Subdivision is located to the south. To the east is Carrollton Business Center and the Carrollton Post Office.

BACKGROUND:

The project site is located within a commercial shopping center, Carrollton Cove Shops, that includes several retail tenants. The site plan for the shopping center included two buildings, of which only one has been built and is being used at this time. Prior to the shopping center being constructed in 2006, a commercial kennel known as James River Kennels operated on the parcel for approximately thirty (30) years. The adjacent Ashby West Subdivision was approved in 2005. In 2008 Planning and Zoning received a complaint relating to noise disturbance from James River Kennels; however, the Zoning Administrator at the time determined the Zoning Ordinance did not provide any enforcement measures that could have applied.

In 2008, a conditional use permit was granted by the Board of Supervisors to operate a retail pet center and boarding kennel on this parcel with one of the conditions stating that there would be no outdoor runs, and that all

animals would be kept inside. Ms. Hall's kennel, Dashing Dogs, previously occupied space at Carrollton Coves Shoppes in 2013 and operated under the conditions of the previous conditional use permit.

In 2018, Dashing Dogs obtained a conditional use permit and relocated to 14168 Carrollton Boulevard (Rte. 17). The applicant's lease at this location was terminated earlier this year due to the property being affected by the Nike Park Road Extension Project. Dashing Dogs has since relocated to 15042 (Suites K and L) Carrollton Boulevard and was issued a zoning permit in April 2023 for personal service use, which includes dog grooming and daycare. The applicant has applied for this conditional use permit to establish overnight boarding which falls under the commercial kennel use type.

DESCRIPTION:

The applicant proposes to continue the grooming and daycare operations and to establish overnight boarding at the facility. The applicant has stated that business hours will be from 6:30 AM to 9:00 PM. The latest that dogs may go outside is 9:00 PM. The applicant states that dogs will only be let out for short periods of time for restroom use and exercise. Fecal matter will be placed in double-layered plastic bags and disposed of in the dumpster. There will be no cremation services. The applicant has erected a chain-link fence six (6) feet in height that is overlayed by a vinyl privacy fence for an outdoor exercise area. The fence is located approximately forty (40) feet from the nearest residential property line which satisfies the supplementary use regulation for commercial kennel in the General Commercial zoning district. The applicant is proposing to board a maximum of eighty animals.

If the CUP is granted, the applicant will be required to meet all supplementary use regulations for the commercial kennel use type and must also follow the appropriate site plan review process to facilitate the development of the site.

COMPREHENSIVE LAND USE PLAN:

The future recommended land use designation is Business & Employment (BE). BE land use consists of office space, commercial uses both stand alone and in shopping centers, and some light industrial uses. Preservation of environmental features still occurs.

The BE land use is best located on major transportation routes and at major intersections, should be master planned for coordination with surrounding uses and quality of design internally, and should also have access to public water and sewer infrastructure with capacity for more intense development.

Appropriate uses found in the BE land use may include medical offices, an office park in a campus like setting, supporting retail services, community shopping centers, light manufacturing, research and development, and other low intensity industrial uses which are compatible with surrounding development. Non-residential uses may include parks and trails, or existing community facilities, but siting for new community facilities should be considered elsewhere first. BE should be connected to residential uses with vehicular and pedestrian access.

ORDINANCE REVIEW:

The zoning district classification for this property is General Commercial (GC). The GC zoning district is intended to provide the full range of commercial activities and establishments which are not primarily related to residential developments and which require accessibility from higher order roadways than the LC district. The applicant is proposing to continue daycare and grooming operations and to establish overnight boarding at the facility, which is classified as a commercial kennel use type in the Zoning Ordinance. The commercial kennel use type is permitted as a conditional use in the GC zoning district and may be considered compatible with appropriate conditions to mitigate any potential negative impacts on the surrounding community.

Section 1-1017 of the Zoning Ordinance provides standards for review of a conditional use application that the Planning Commission and Board of Supervisors shall consider before granting a conditional use permit. They are as follows:

1) That the establishment, maintenance, and operation of the conditional use will not be detrimental to or endanger the public health, safety, and general welfare;
2) That the conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially impair the use of other property within the immediate proximity;
3) That adequate utilities, water, sewer or septic system, access roads, storm drainage and/or other necessary public facilities and improvements have been or will be provided;

4) That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion on the public streets;
5) That the proposed conditional use is not contrary to the goals and objectives of the Isle of Wight County Comprehensive Plan;
6) That the conditional use shall, in all other respects, conform to the applicable regulations of the zoning district classification in which it is located and to the special requirements established for the specific use; and
7) That the use(s) at the location proposed will not result in a multiplicity or saturation of similar uses in the same general neighborhood of the proposed use

In addition to the standards and other guidelines described in the Zoning Ordinance, the Board may impose conditions or limitations on any approval, including the posting of performance guarantees. Such conditions may include, but are not necessarily limited to:
1) The number of persons living or working in the immediate area and the proposed hours of operation, as may applicable;
2) Traffic conditions, including facilities for pedestrians, such as sidewalks and parking facilities; the access of vehicles to roads; peak periods of traffic; and proposed roads, but only if construction of such roads will commence within the reasonably foreseeable future;
3) The orderly growth of the neighborhood and community and the fiscal impact on the County;
4) The effect of odors, dust, gas, smoke, fumes, vibration, glare, and noise upon the use of surrounding properties;
5) Facilities for police, fire protection, sewerage, water, trash and garbage collection and disposal, and the ability of the County or persons to supply such services;
6) The degree to which the development is consistent with generally accepted engineering and planning principles and practices;
7) The structures in the vicinity such as schools, houses of worship, theaters, hospitals, and similar places of public use;
8) The purposes set forth in this ordinance, the County's Comprehensive Plan, and related studies for land use, roads, parks, schools, sewers, water, population, recreation, and the like;
9) The environmental impact, the effect on sensitive natural features, and opportunities for recreation and open space; and
10) The preservation of cultural and historic resources of landmarks.

Should the CUP be approved, the applicant will be required to submit a simplified site plan meeting all requirements of the zoning ordinance.

AGENCY REVIEW:

The application was forwarded to the following departments for their review:

- **Sheriff's Department:** Our only concern will be the noise that is generated with the boarding of animals and the impact of complaints of the neighboring businesses as well as the outside kennel area to the proximity of the homes in Ashby Estates. In the original submittal there is no mention of sound barriers other than the proposed fence addition.

Please note that, should this CUP be approved, it will be subject to review and approval from all associated agencies during site plan review.

STAFF CONCLUSIONS:

Staff conducted research to determine if there are any applicable federal or state regulations for commercial kennels. The State Veterinarian stated that there are no specific requirements for kennel floor space or square footage for commercial kennels, but that the Code of Virginia requires that "adequate shelter" and "adequate space" be provided for the animals. Additionally, the Director of the Isle of Wight County Animal Shelter stated that space must be large enough for the animals to move and turn around within the individual kennel.

The federal Animal Welfare Act sets standards of care and treatment for dogs used in research, exhibited to the public, bred for commercial sale, or transported in commerce. All primary enclosures must have adequate space for each adult dog to turn about freely and to stand, sit, and lie down in a comfortable, normal position. For a dog as small as seven (7) inches in length, a minimum space of nine (9) square feet is required, and for a dog as large as fifty-two (52) inches in length, a minimum space of twenty-three (23) square feet is required.

Staff identified the following strengths and weaknesses of the application:

<u>Strengths:</u>

1. The use is consistent with the BE future recommended land use and GC zoning district.
2. The proposed use will have minimal impact on community facilities and resources.
3. Approval will allow for an existing business in the County to grow their clientele.
4. The fencing and outdoor run area are located adjacent to residential property lines with a forty foot separation, which exceeds the ten foot setback minimum in the Supplementary Use Regulations for a commercial kennel.

Weaknesses:

1. The number of animals boarded and the use of the outdoor dog run may result in excessive noise for neighboring property owners in the Ashby Subdivision.
2. The number of animals seems excessive for a retail center location and could create a disturbance for other merchants.

STAFF RECOMMENDATION:

Staff recommends approval of the CUP with the following conditions: 1. No more than five animals are permitted in the outdoor exercise space at one time. 2. No more than sixty animals may be boarded overnight, of which no more than fifty may be dogs. 3. The commercial kennel use only applies to Suites K and L. The applicant must obtain approval from the Zoning Administrator prior to moving into any other space within the parcel.

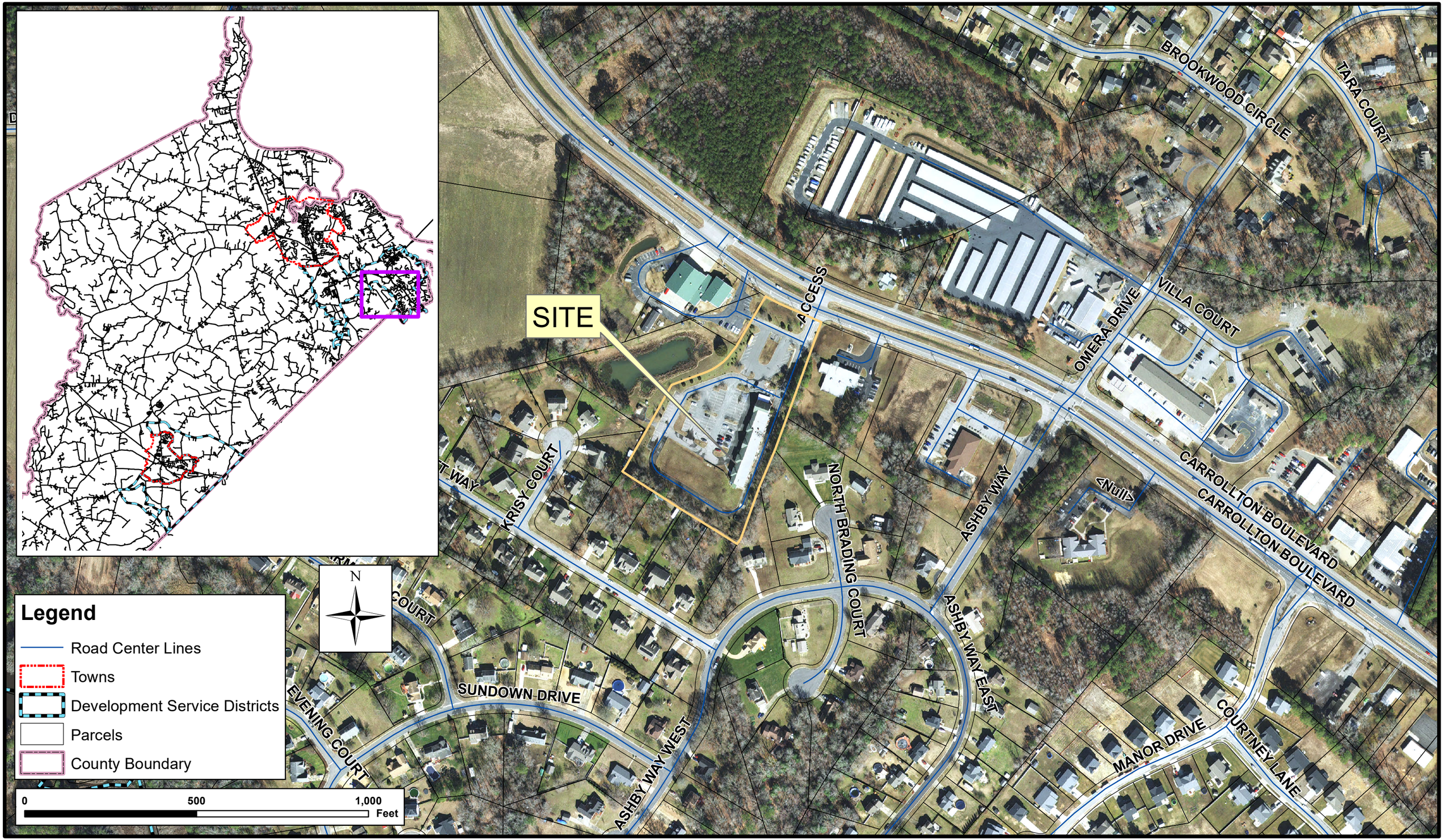
ATTACHMENTS:

Description	Type	Upload Date
Application	Backup Material	7/14/2023
Narrative	Backup Material	7/14/2023
Concept Plan	Backup Material	7/14/2023
Location Map	Backup Material	7/14/2023
Location Closeup Map	Backup Material	7/14/2023
Zoning Map	Backup Material	7/14/2023
Land Use Map	Backup Material	7/14/2023
Site Images	Backup Material	7/14/2023
PC Resolution	Resolution	7/14/2023

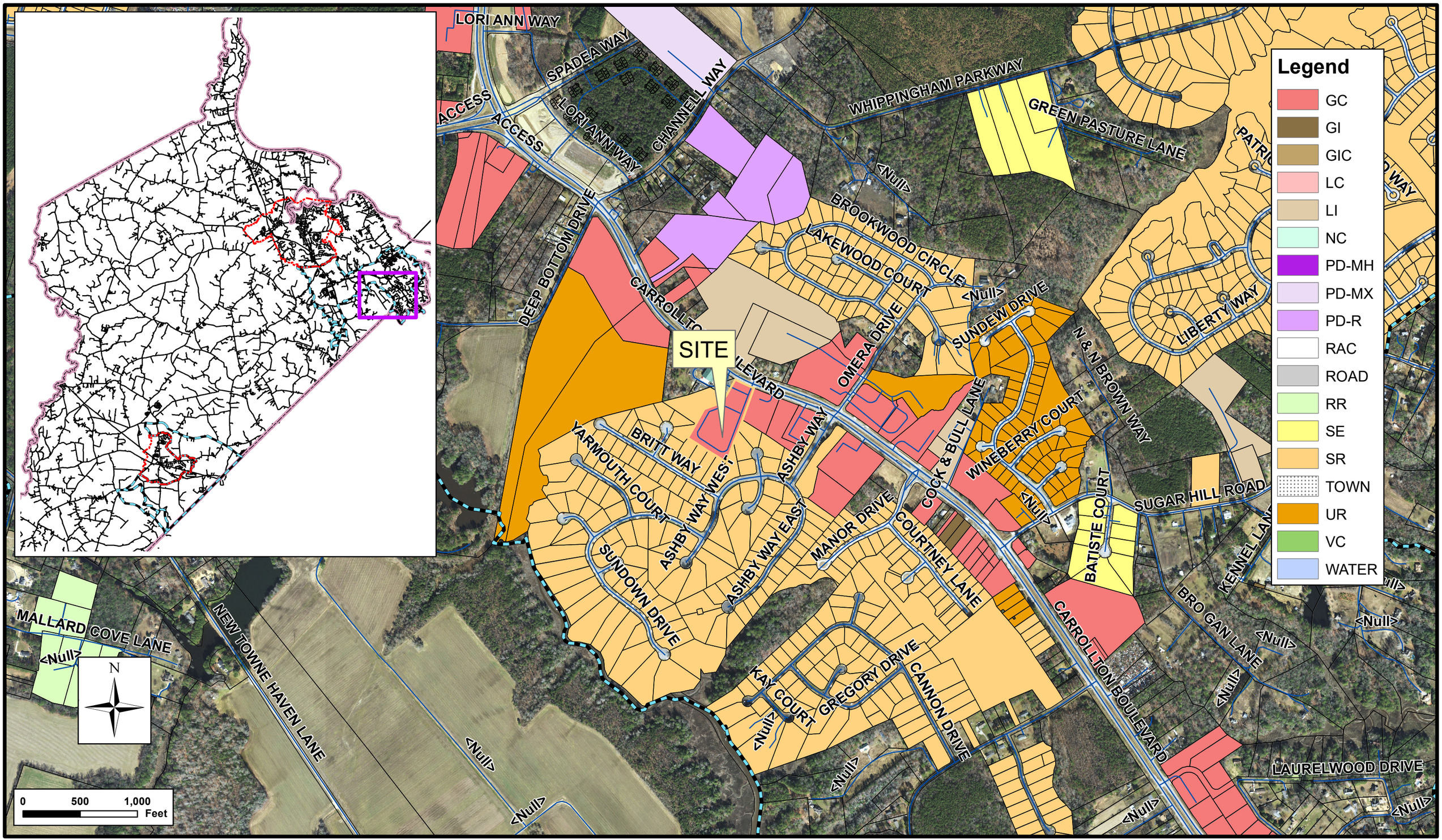
CUP-9-23 Conditional Use Permit - Location Map



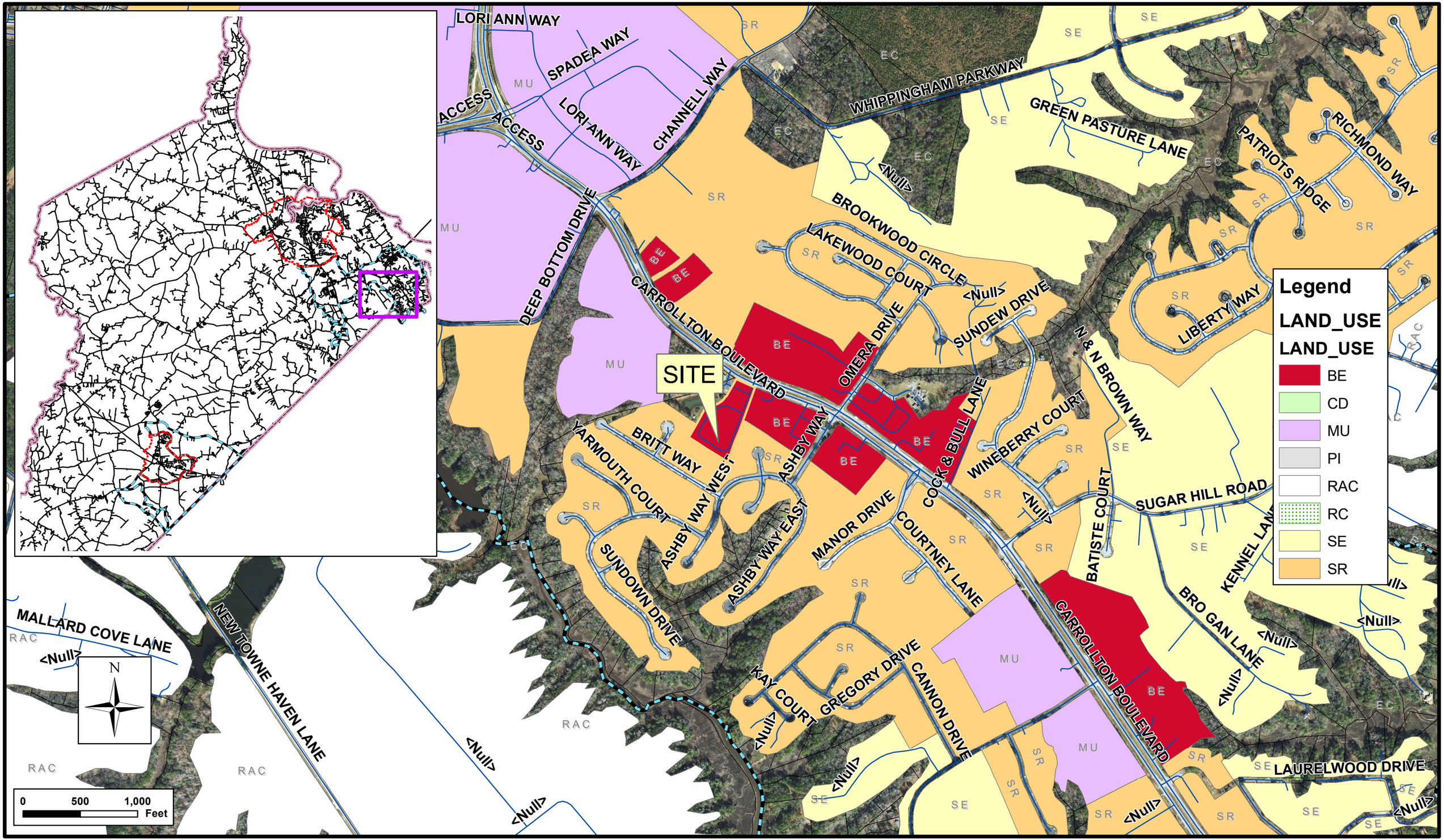
CUP-9-23 - Location Closeup Map



CUP-9-23 - Zoning Map



CUP-9-23 - Land Use Map





Suites K (formerly Tappinto Beauty) and L facing east


The six (6)-foot privacy fence and vacant space for future building



Outdoor exercise area

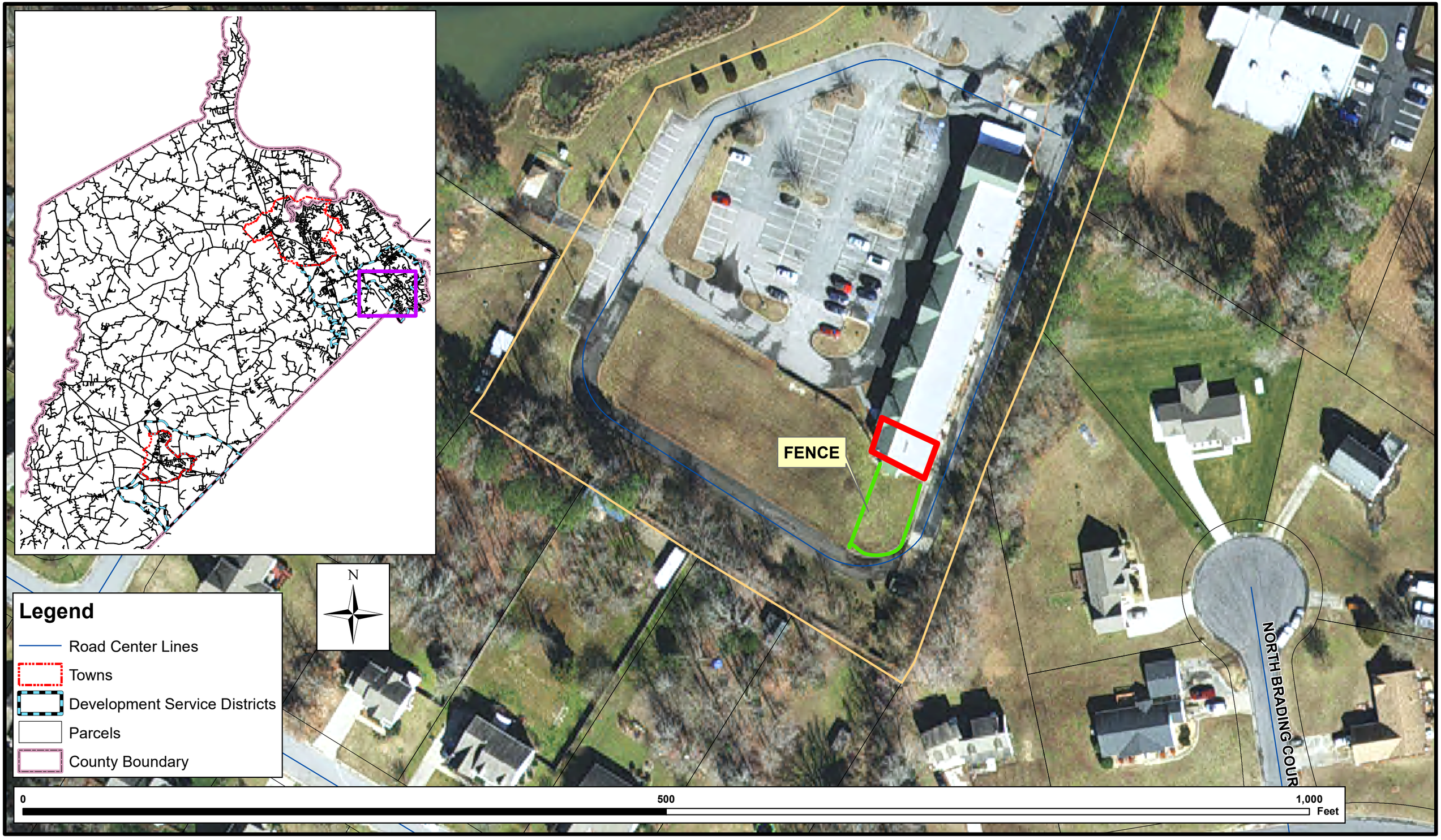


Rear access road facing east



Rear access road facing north

CUP-9-23 Concept Plan



ISLE OF WIGHT
COUNTY, VIRGINIA

RECEIVED
APR 27 2023
By:

APPLICATION FOR CONDITIONAL / SPECIAL USE PERMIT

This application should be used to petition for a permit for certain uses which, because of their unique characteristics or potential impacts on adjacent land uses, are not generally permitted in certain zoning districts as a matter of right, but which may, under the right set of circumstances and conditions be acceptable in certain specific locations. The following application requirements are consistent with the procedures set forth in Section 1-1017, *Conditional Uses*, and Section 1-1018, *Special Use Permits for Uses Not Provided For*, of the Isle of Wight County Zoning Ordinance, as amended.

A. APPLICATION FOR (CHECK ALL THAT APPLY):

[X] Conditional Use Permit (Are applicant proposed conditions attached?): _____ Yes X No

The proposed use or activity is listed as a conditional use in the GC zoning district as per Section 4-1003 in Article IV of the Isle of Wight County Zoning Ordinance.

[ ] Special Use Permit (Are applicant proposed conditions attached?): _____ Yes _____ No

Proposed Use or Activity: Gromming, Daycare, Boading for dogs in existing building.

B. PROJECT DESCRIPTION:

Project Name: Dashing Dogs

Property Address (if any): 15042(L) Carrollton Blvd. Carrollton Va 23314

Election District: D4

Comprehensive Plan Designation: BF

The use permit will apply to ~~4.79~~ 4.46 acres out of 4.46 total acres

Tax Parcel Identification # 34-07-000B Number of acres to be effected: 4.46 ac.

Tax Parcel Identification # _____ Number of acres to be effected: _____

Tax Parcel Identification # _____ Number of acres to be effected: _____

Proposed Utilities (check all that apply): Public Water ✓ Private Well _____

Public Sewer ✓ Private Septic _____

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): Debra Hall

Address: 14038 Bowling Green Rd

City, State, Zip Code: Windsor, Va 23487

Phone No.: 757-525-7043 Email: dashingdogs53@gmail.com Fax No.:

Property Owner(s) Name(s): Carrollton Cove Shoppes LLC

Address: 3613 Point Elizabeth Dr

City, State, Zip Code: Chesapeake, VA, 23321

Phone No.: 757-404-8400 Email: elliotcohen8@gmail.com Fax No.:

Debra Hall 4-27-23

Applicant Signature **Date**

Elliot Cohen 4-11-23

Owner Signature *if different* **Date**

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

FOR OFFICE USE ONLY:

Complete Application Received On: _____ Fees Paid: _____

Tax Query: [ ] Current [ ] Delinquent Distribution Date: _____

Posted/Date to Post: _____

AGENCIES REFERRALS:

_____ Department of Conservation & Recreation
_____ Economic Development
_____ Emergency Services
_____ General Services
_____ Environmental Planner
_____ Health Department
_____ Transportation Manager
_____ Commission of Revenue
_____ Other _____

_____ Inspections
_____ Sheriff's Office
_____ Town of Smithfield
_____ Town of Windsor
_____ VDOT
_____ Schools
_____ Budget & Finance
_____ County Attorney

Verified By: _____ Date: _____

COUNTY OF ISLE OF WIGHT
DISCLOSURE OF REAL ESTATE HOLDINGS

Applicant Debra Hall

Address 14038 Bowling Green Rd
Street

Windsor Va 23487
City State Zip

REAL ESTATE HOLDINGS TO BE AFFECTED

Location or Address	Description
15042 Carrollton Blvd	Par B Rayland Westby Est
Carrollton Cove Shoppes	Plat 2-155-5 MHP/Parcel #
Carrollton, VA. 23314	Acreage 4.46 34-07-000B

OTHER OWNERS OF AFFECTED REAL ESTATE
(Not Required for Corporation whose stock is traded on a national or local stock exchange or having more than 500 shareholders.)

Name of Individuals Corporation/Partnership Business Association	Address
Carrollton Cove Shoppes LLC	3613 Point Elizabeth Dr
	Chesapeake, VA. 23321
Elliot Cohen	

Does any member of the Isle of Wight County Planning Commission or governing body have any interest in such property, either individually, by ownership of stock in a corporation owning such land, partnership, as the beneficiary of a trust, or the settlor of a revocable trust, or whether a member of the immediate household of any member of the Planning Commission or governing body has any such interest? Yes[ ] No[✓]
If yes, names of members:

I do solemnly swear that the foregoing statement(s) and attachments(s), if any, are complete, correct, and true.

Applicant: Debra Hall (Printed or Typed Name) Applicant: Debra Hall (Signature) Date: 4-11-23

Commonwealth of Virginia
County of Isle of Wight

Subscribed and sworn to before me Linda M Kearney
A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this 11th day of April, 2023

Linda M Kearney
Notary Public

My Commission Expires 1/31/26

LINDA M KEARNEY NOTARY PUBLIC REG # 7112745 MY COMMISSION EXPIRES 1/31/26 COMMONWEALTH OF VIRGINIA

SUBMITTAL CHECKLIST FOR CONDITIONAL / SPECIAL USE PERMIT APPLICATIONS

In conjunction with Section 1-1017, *Conditional Uses*, and Section 1-1018, *Special Uses Permits for Uses Not Provided For*, of the Isle of Wight County Zoning Ordinance, as amended, the following information shall be submitted for a Conditional / Special Use Permit Application. Please note that it is the applicant's responsibility to ensure that the application is in compliance with all Federal, State and County regulations.

No application for a Conditional / Special Use shall be certified as complete unless the following information is provided. **The required number of copies may be reduced with permission of the Zoning Administrator.**

- ☐ Application: Ten (10) copies of the original, executed application, one (1) digital copy of all application documents, and one (1) original executed application. Both the applicant(s) and the property owner(s) must have their signature(s) notarized on page 3 of the application.

- ☐ The appropriate fees have been submitted with the application. Checks should be made payable to: Treasurer, Isle of Wight County.

- ☐ Ten (10) copies of a statement of the reasons for seeking such permit and if applicable, a statement of conditions.

- ☐ Ten (10) copies of a narrative description of the property which shall include the Tax Parcel Identification

- ☐ Ten (10) copies of a concept plan of the property showing all existing and proposed physical improvements and such other information as is necessary to clearly indicate to the Planning Commission and Board of Supervisors that adequate provisions shall be made for compliance with all standards for that particular use and the extent of the property to be so used on a given parcel or parcels. Such document shall be drawn to scale and shall include the following information:
  - A vicinity map at a scale of no less than one (1) inch equals two thousand (2,000) feet
  - Title of drawing
  - Date of drawing
  - Existing wood line
  - North arrow
  - Scale bar
  - Current zoning of parcel(s) to be rezoned, including tax map number(s) and owner(s)
  - Current zoning of adjacent parcel(s), including tax map number(s) and owner(s)
  - Street names including route number and width(s) of the right-of-way(s)
  - Ten (10) full size copies, with one (1) reduced 11-inch X 17-inch copy and a digital copy shall be submitted

- Please note that additional information on the site layout may be requested by the Zoning Administrator during the review process to **review the application and prepare the staff reports for the Planning Commission and Board of Supervisors more effectively**.

☐ Ten (10) copies of such supplemental material as may be necessitated by the proposal itself or the district in which located or proposed to be located, and in accordance with Section 5-5000, *Supplementary Use Regulations*, of the Isle of Wight County Zoning Ordinance.

☐ A WQIA (Water Quality Impact Assessment) if located in the Chesapeake Bay Preservation Area.

☐ All real estate taxes must be paid and current at the time of submittal; otherwise, the submittal will be refused at the counter. Proof of the most recent tax payment to the County must accompany the application.

I, the undersigned, certify that this application is complete, accurate and contains all required and requested information, documents and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete and correct information available. I understand that any section not completed in its entirety may delay processing of this application and the date of the Planning Commission public hearing and that the submittal of a complete application does not guarantee the application will be placed on the next available Planning Commission agenda.

Debra Hall
Printed or Typed Name

Debra Hall
Signature

4-11-23
Date

I would like to use this location,
15042 Carrollton Blud (L)
Carrollton Cove Shoppes
Carrollton, Va 23314

to do daycare and boarding for dogs. I was here five years ago and it was approve then, so hopefully it will be approved again.

Thank you very much!

Debra Hall
Dashing Dogs

COUNTY OF ISLE OF WIGHT
JUDITH C WELLS - TREASURER
PO Box 79
ISLE OF WIGHT, VA 23397-0079

ADDRESS SERVICE REQUESTED

2022 / 2023 REAL ESTATE TAX / STORMWATER FEE

Customer ID #	Map / Parcel #
000075431	34-07-000B

DUE DATE - June 05, 2023

*013354/1--S 43--B 1

CARROLLTON COVE SHOPPES LLC
3613 POINT ELIZABETH DR
CHESAPEAKE VA 23321-5753

The Treasurer only collects taxes, does not assess property, fix valuations, set rates or grant exemptions and has no authority to make changes to the tax bill. For payment information or arrangements, contact Treasurer's Office at 757-365-6228 or 757-365-6220 for Stormwater.

For assessment and address changes, contact the Commissioner of Revenue's Office at 757-365-6218.

PENALTY EXPLAINED

If paid after due date, add penalty of:
Assessed tax $10.00 or under - no more than tax
Assessed tax $10.00 - $100.00 - $10.00 minimum
Assessed tax over $100.00 - 10% of tax
Interest at 10% per annum begins after the due date.

See the back of this notice for payment options and additional information.

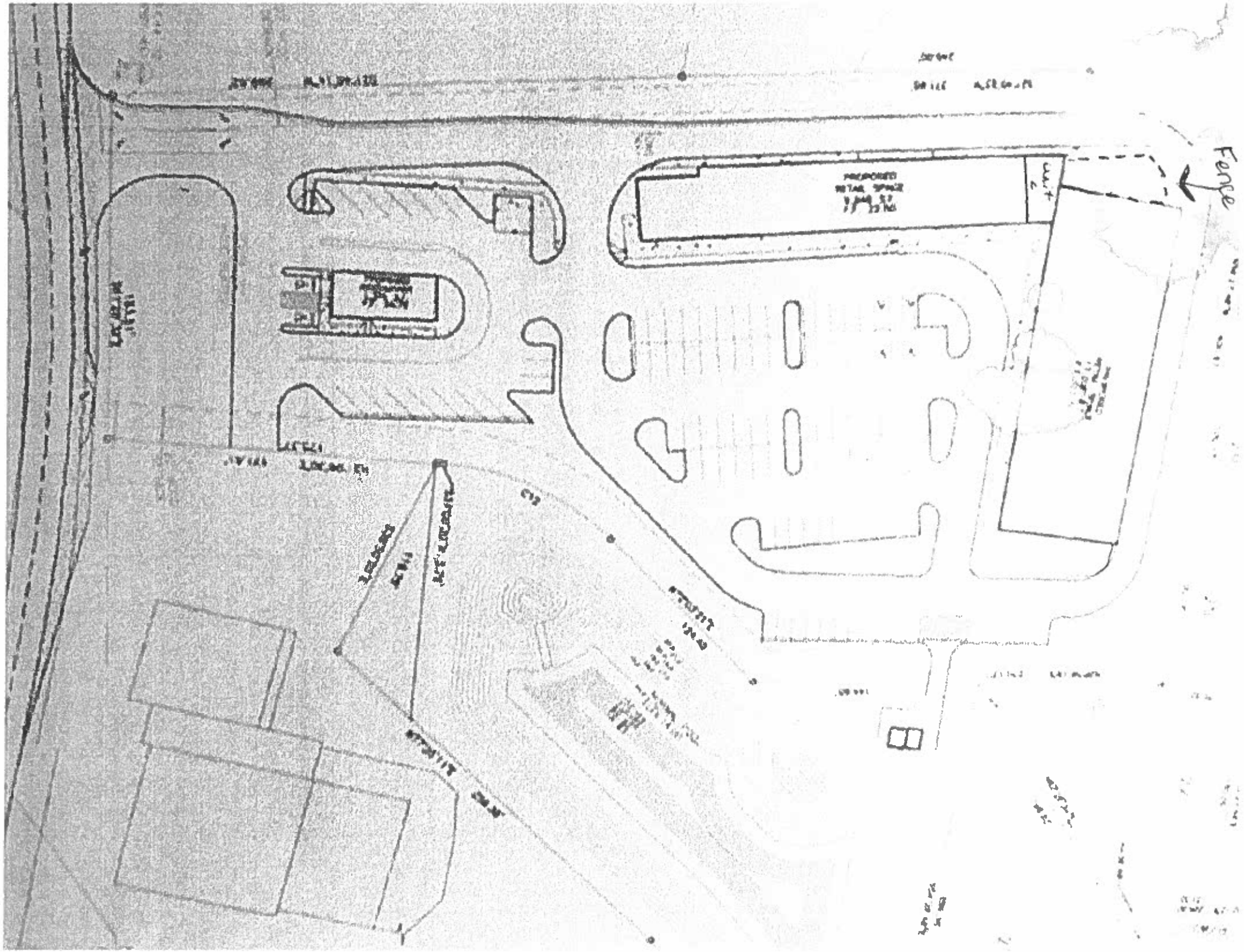
Code of Virginia 58.1-3913 Delinquent tax MUST be paid first.

If check is not honored by bank, receipt is void.

Description	Identification	Rate per $100	Mortgage
PAR B RYLAND W ASHBY EST PLAT 2-155-5 ACREAGE 4.460	Map / Parcel No. 34-07-000B	0.85	

Land Value	Property Value	Total Value	Assessment Period	Current Tax Due	Stormwater Fee	TOTAL DUE *
780,500	620,900	1,401,400	January 1 June 30	5,955.95	864.00	6,819.95
REAL ESTATE 1ST HALF						5,955.95
STORMWATER MGMNT FEE 1ST HALF NON RES						864.00
Payments						-6,819.95
				TOTAL DUE THROUGH June 05, 2023		6,819.95

* Total Due includes credits, transfers, abatements, etc.


Fence

ELLIOT COHEN
3613 POINT ELIZABETH DRIVE
CHESAPEAKE, VIRGINIA 23321
CONTACT PERSON: ELLIOT COHEN
(757) 483-1750

SITE STATISTICS:

STORMWATER MANAGEMENT LOT AREA: 1.79 ACRES
COMMERCIAL AREA: 4.46 ACRES
ZONING FOR COMMERCIAL LOT: GC
ZONING FOR STORMWATER MANAGEMENT LOT: NC-R1
TAX MAP: TAX PARCEL # 34-07-000B,000C
DEED BOOK 244, PAGE 53

THE CONTRACTOR IS TO NOTIFY THE DEPARTMENT OF PUBLIC WORKS AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY LAND DISTURBING ACTIVITI

IN ACCORDANCE WITH USDA SOIL CONSERVATION SERVICE PUBLICATION, SOIL SURVEY OF ISLE OF WIGHT COUNTY, THE SOILS A (9) WITH LOW SHRINK-SWELL P

THIS SITE APPEARS T TED IN FLOOD ZONE "X" AS SHOWN ON COMMUNITY PANEL 510303 0170D, EFF: SEP

PROPOSED USE: RETAIL SPACE AND RESTAURANT

ALL UTILITIES SUCH AS ELECTRIC, CATV, TELEPHONE OR OTHER UTILITIES ARE TO BE INSTALLED UNDERGROUND

Text
Color ByLayer
Layer TEXT1
Linetype ByLayer

SHEET 3 - COM SHEET 4 - COM SHEET 5 - COM SHEET 6 - COM SHEET 7 - COM SHEET 8 - COM SHEET 9 - COM SHEET 10 - C

Weatherly Insurance Agency, Inc.
7810 N. Croatan Hwy • PO Box 3426

Conditional use Permit application:
General Standards are met by:

- When handling fecal matter in the yard, it is put in a double bag, and disposed in a dumpster.
- Dashing Dogs does not provide any burial or cremation services of any kind. We are strictly grooming, boarding, and daycare.
- Our vinyl fences are twenty feet from any property lines, which is twice the length needed to meet regulations.
- Our fence is directly next an an alley way designated for delivery trucks for other business. Due to this there are not trees or plants planted around the property. There are trees on the other side of the alley way that is not our property.
- Our facility holds a maximum of twenty-five dogs during the day.
- Our Business Hours are from 6:30 Am to 6 pm. Dogs can only go outside together at this time. However dogs are not let out for long periods of time. They are only let out to go to the restroom, then come back inside. The latest dogs go outside is 8:00 pm, however they only go outside to potty then bed.

Thank you,
Debra Hall

Planning and Zoning

Caleb Kitchen

Thank you for your much needed help with my application.

Since my last submission to you I have signed a new lease starting 7-1-2023, that includes the unit K building next to the unit L at Carrollton Cove Shoppes. I was originally in both units but when I was forced to move from my other location, I had to take the smaller space until the K unit came available.

This has doubled the space for my business since I submitted my request for the boarding kennel part of my business. I need to adjust my business hours to 6:30am – 9pm and the number of animals to be in the building at one time to 80.

Once again thank you for your help, sincerely

Debra Hall

Debra Hall

Caleb J. Kitchen

From: Elliot Cohen <elliotcohen8@gmail.com>
Sent: Friday, June 30, 2023 1:26 PM
To: Caleb J. Kitchen
Cc: dashingdogs53@gmail.com
Subject: Re: 1st Submittal Review Comments, Dashing Dogs, CUP-9-23, MUNIS #27958

Caution: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Elliot Cohen here. Sorry Debra did not respond to your questions. Accepting grooming dogs stops at 6 pm to be picked up no later than 9 pm. Boarding dogs can come in as late as 9 pm. No dogs to be outside after 9 pm. Number of animals to be 80 boarded animals. I be plan on being at the meeting to answer questions.

On Fri, Jun 30, 2023 at 1:07 PM Caleb J. Kitchen <ckitchen@isleofwightus.net> wrote:

> Hi Ms. Hall,
>
> I left you a voicemail and am just following up on the below questions I emailed you last week.
>
> Also wanted to check and make sure that either yourself or a representative for you is able to attend the next Planning Commission meeting on Tuesday, July 25th at 6:00PM?
>
> Best regards,
>
> Caleb J. Kitchen
>
> Planner 1
>
> Planning & Zoning Division
>
> 757-365-3660
>
> Local Roots, Global Reach
> ISLE OF WIGHT
> COUNTY, VIRGINIA

Caleb J. Kitchen

From: Caleb J. Kitchen
Sent: Wednesday, July 12, 2023 11:47 AM
To: Amy Ring; Jeryl R. Phillips
Cc: Bobby Jones
Subject: FW: Elliot Cohen Dashing Dogs response

See below for highlighted Elliot Cohen responses.

Best regards,

Caleb J. Kitchen
Planner 1
Planning & Zoning Division
757-365-3660
Local Roots, Global Reach
ISLE OF WIGHT
COUNTY, VIRGINIA

From: Elliot Cohen <elliotcohen8@gmail.com>
Sent: Wednesday, July 12, 2023 10:27 AM
To: Caleb J. Kitchen <ckitchen@isleofwightus.net>
Subject: Re: 1st Submittal Review Comments, Dashing Dogs, CUP-9-23, MUNIS #27958

Caution: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Reply

On Wed, Jul 12, 2023 at 9:23 AM Caleb J. Kitchen <ckitchen@isleofwightus.net> wrote:

> Mr. Cohen,
>
> I received Ms. Hall's letter and have reviewed everything with my supervisor and Amy, our Zoning Administrator.
>
> After review, we have some hesitation when thinking about the reality of having up to 80 dogs within the two suites. I am doing some research looking into any state or federal guidelines for kennel spaces per dog.
>
> I have a few questions related to the number of dogs…
>
> 1. When it states "number of animals to be in the building at one time to 80," does that mean that there would be a maximum of 80 dogs boarded overnight or a maximum of 80 dogs total serviced during the day? What does having 80 dogs look like?

1. Over night animals could be more then one animal in one kennel as families ask to board their animals together, so yes 80 animals over night could happen, but most of the time people drop off in the morning on the way out of town but pick up in the afternoon/evening after getting home from traveling. So the overlap is during the daytime. Animals could be cats and dogs but any other animal. Ie: rabbit, bird, people go on vacation and board all types pets.

2. Do we have a number for grooming customers versus boarding overnight customers?

   2. no. Boarding and grooming is by appointment but walk-Ins do happen. No grooming starts after 6pm because of drying time but morning grooming could be picked up in the evening. Day care is usually several dogs together in one area.

3. What is the total square footage of suites K and L?

   3. 1750 sq ft = unit k&L

4. Can Ms. Hall provide a floor plan showing how the kennels, work stations, and customer areas are laid out between the two suites?

   4. Will work on that for you but free standing kennels can be stacked and are moveable within the building. Please note that james river kennels before I agreed to replace it with the shopping center housed 100 animals and during holidays the overlap during the day could be 120 animals. I was granted a permit at that time to have a boarding kennel within the shopping center.

I have to submit all the application material by the end of day on Friday, so if you are able to get this information to me by then that would be great.

Best regards,

Caleb J. Kitchen

Planner 1

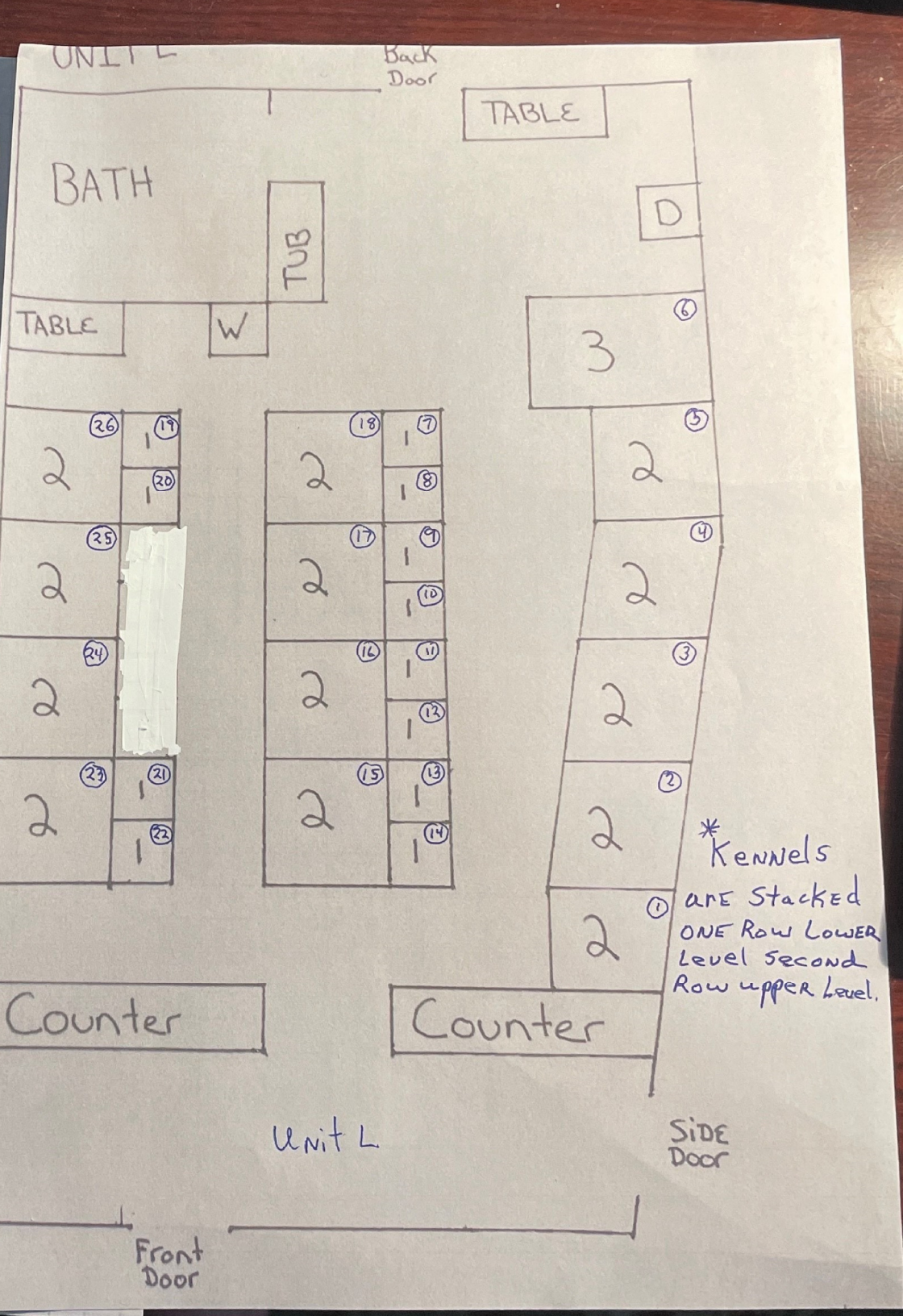
Planning & Zoning Division

757-365-3660

Local Roots, Global Reach
ISLE OF WIGHT
COUNTY, VIRGINIA

From: Caleb J. Kitchen
Sent: Friday, July 7, 2023 2:20 PM
To: Elliot Cohen <elliotcohen8@gmail.com>
Subject: RE: 1st Submittal Review Comments, Dashing Dogs, CUP-9-23, MUNIS #27958


CLOSET
BATH
CAB
TABLE
TABLE
CAB
CAB
TABLE
2
2
Counter
Unit K
Front Door


Back Door
TABLE
BATH
TUB
D
TABLE
W
3
2
2
2
2
2
2
2
2
2
2
2
2
2
2
2
2
Counter
Counter
*Kennels are stacked ONE Row Lower Level Second Row upper Level.
Unit L
Side Door
Front Door

ORDINANCE NUMBER ___ _____

AN ORDINANCE TO ISSUE A CONDITIONAL USE PERMIT, CUP-9-23, TO ESTABLISH A COMMERCIAL KENNEL ON A PORTION OF PROPERTY ZONED GENERAL COMMERCIAL AND LOCATED ON CARROLLTON BOULEVARD WITH TAX PARCEL NUMBER 34-07-000B

WHEREAS, Debra Hall, applicant, and Carrollton Cove Shoppes LLC, property owner, has requested the issuance of a conditional use permit for a certain portion property with tax parcel number 34-07-000B, which land is depicted on Exhibit "B"; and,

WHEREAS, the procedural requirements of Appendix B, Zoning Ordinance, of the Code of Isle of Wight County, Virginia, 2005 (as amended), have been followed; and,

WHEREAS, in acting upon this request, the Planning Commission and Board of Supervisors have considered the matters enunciated in Section 15.2-2284 of the Code of Virginia (1950), as amended, and Section 1-1017 of the Isle of Wight County Zoning Ordinance with respect to the purposes stated in Code of Virginia (1950), as amended, Section 15.2-2200 and 15.2 2283; and,

WHEREAS, the Planning Commission has made a recommendation as stated in Exhibit "A;"

NOW, THEREFORE, BE IT ORDAINED by the Isle of Wight County Board of Supervisors of Isle of Wight County, Virginia, that:

Section 1. Exhibits.

Exhibit "A", "Planning Commission Recommendation", Exhibit "B", "Property Map", and Exhibit "C" Conditions which are attached hereto, are hereby incorporated as part of this ordinance.

Section 2. Findings.

The Board of Supervisors finds that the proposal for a conditional use permit (CUP-9-23), as submitted or modified with conditions herein, the expressed purpose of which is to permit a commercial kennel, is in conformity with the standards of the Isle of Wight County Zoning Ordinance, and that it will have no more adverse effects on the health, safety or comfort of persons living or working in or driving through the neighborhood, and will be no more injurious to property or improvements in the neighborhood than would any other use generally permitted in the same district, taking into consideration the location, type and height of buildings or structures, the type and extent of landscaping and screening on site and whether the use is consistent with any theme, action, policy or map of the Comprehensive Plan with the conditions set forth below.

These findings are based upon the consideration for the existing use and character of the property, the Comprehensive Plan, the suitability of the property for various uses, the trends of growth or change, the current and future requirements of the community as to land for various purposes as determined by population and economic studies and other studies, the transportation requirements of the community, the requirements of airports, housing, schools, parks, playgrounds, recreation areas and other public services, the conservation of natural resources, the preservation floodplains, the preservation of agricultural and forestal land, the conservation of properties and their values, and the encouragement of the most appropriate use of land throughout the County.

These findings are based upon a determination that most reasonable and limited way of avoiding the adverse impacts of a major utility service is by the imposition of the conditions provided herein.

Section 3. Permit Granted.

The conditional use permit for the property be, and is hereby approved for the property, subject to the attached conditions in Exhibit "C" and the general conditions set forth in Section 4 hereof. The conditional use permit specifically allows for a commercial kennel in compliance with the County Zoning Ordinance.

Section 4. Severability.

It is the intention of the Board of Supervisors that the provisions, sections, paragraphs, sentences, clauses, and phrases of this ordinance are severable; and if any phrase, clause, sentence, paragraph, section, and provision of this ordinance hereby adopted shall be declared unconstitutional or otherwise invalid by the valid judgement or decree of a court of competent jurisdiction, such unconstitutionality or invalidity shall not affect any of the remaining phrase, clauses, sentences, paragraphs, sections, and provisions of this ordinance, to the extent that they can be enforced notwithstanding such determination.

Section 5. Effective Date

This ordinance shall be effective upon passage and shall not be published or codified. The conditional use authorized by this permit shall be implemented within two (2) years from that date of approval by the Board of Supervisors and shall terminate if not initiated within that time period.

This ordinance shall be effective upon passage and shall not be published or codified.

DATE: _____

READ AND PASSED: _____
Chairman, Board of Supervisors

TESTE: _____
Clerk, Board of Supervisors

Approved as to Form:

_____
Robert W. Jones Jr, County Attorney

EXHIBIT A

RESOLUTION NUMBER PC-23-7

ISLE OF WIGHT COUNTY PLANNING COMMISSION
A RESOLUTION TO PRESENT A REPORT AND RECOMMENDATION TO THE BOARD OF SUPERVISORS RELATING TO CONDITIONAL USE PERMIT REQUEST CUP-9-23 TO ALLOW A COMMERCIAL KENNEL FACILITY ON 4.46 ACRES ON PROPERTY WITH TAX MAP PARCEL 34-07-000B.

WHEREAS, Debra Hall, applicant, and Carrollton Cove Shoppes, LLC, property owner, as represented by Elliot Cohen, Principal, have requested approval of a conditional use permit for a commercial kennel in Suites K and L of a shopping center located on 4.46 acres of land on tax parcel number 34-07-000B; and,

WHEREAS, the specific request is to permit the operation of a commercial kennel facility in accordance with Sections 1-1017 and 4-10003 of Appendix B-1, Zoning, of the Isle of Wight County Code; and,

WHEREAS the procedural requirements for the consideration of this request by the Planning Commission have been met.

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of Isle of Wight County, that:

Section 1. Findings.

✓ A. The Isle of Wight County Planning Commission finds that the proposed conditional use permit CUP-9-23 is reasonable and has considered the following factors and finds that the proposed use does not conflict with:

1. the existing use and character of property within the County;
2. the Comprehensive Plan;
3. the suitability of the property for various uses;
4. the trends of growth or change;
5. the current or future requirements of the community as to land for various purposes as determined by population and economic studies and other studies;
6. the transportation requirements of the community;
7. the requirements for airports, housing, schools, parks, playgrounds, recreation areas and other public services;
8. the conservation of natural resources;

9. the preservation of floodplains;

10. the preservation of agricultural and forestal land;

11. the conservation of properties and their values; and

12. the encouragement of the most appropriate use of land throughout the County.

_____ B. The Isle of Wight County Planning Commission does not find that the proposed use is reasonable based on the consideration of the factors listed herein.

Section 2. Recommendation to Board of Supervisors.

The Planning Commission recommends to the Board of Supervisors that the request, CUP-9-23, be:

___ a. Granted as submitted, and that the Board of Supervisors adopt the proposed Ordinance without modification.

___ b. Denied, and that Board of Supervisors not adopt the proposed Ordinance.

__✓__ c. Granted with the specific recommended conditions in the attached exhibit, and that the Board of Supervisors adopt the proposed Ordinance with such conditions.

DATE: July 25 2023

READ AND PASSED: _____
Chairman, Isle of Wight County Planning Commission

TESTE: _____
Secretary, Isle of Wight County Planning Commission

Approved as to Form:

_____
Robert W. Jones, Jr., County Attorney

EXHIBIT B


DEEP BOTTOM DRIVE
SITE
ACCESS
BROOKWOOD CIRCLE
TARA COURT
OMERA DRIVE
VILLA COURT
CARROLLTON BOULEVARD
CARROLLTON BOULEVARD
<Null>
ASHBY WAY
ASHBY WAY EAST
NORTH BRADING COURT
BRITT WAY
KRISY COURT
YARMOUTH COURT
SUNDOWN DRIVE
EVENING COURT
ASHBY WAY WEST
MANOR DRIVE
COURTNEY LANE
N
Legend
Road Center Lines
Towns
Development Service Districts
Parcels
County Boundary
0
500
1,000
Feet

EXHIBIT C – RECOMMENDED CONDITIONS

CUP-9-23

Planning Commission:

1. Isle of Wight County Animal Shelter staff shall inspect and approve facility conditions during site plan review.

Staff Recommendations:

1. No more than five (5) animals are permitted in the outdoor exercise area at one time.

2. No more than sixty (60) animals may be boarded overnight, of which no more than fifty (50) may be dogs.

3. The commercial kennel conditional use permit shall only apply to Suites K and L. The applicant must obtain approval from the Zoning Administrator prior to moving into any other space within the parcel.

4. Animal feces should be removed from the parking lot throughout the day and a bag dispense shall be provided near the parking lot.

ISSUE:

Ordinance to Amend and Reenact Chapter 3 - Animals and Fowl, Chapter 7 - Fire Protection, Chapter 11 - Motor Vehicles and Traffic, and Chapter 15 - Taxation of the Isle of Wight County Code

BACKGROUND:

Staff has reviewed the County's Code of Ordinances and has found it necessary to update several ordinances in order to correct inaccuracies and to accurately reflect State Code provisions and/or current practices.

The Board may wish to adopt revisions to Chapter 3 - Animals and Fowl, Chapter 7 - Fire Protection, Chapter 11 - Motor Vehicles and Traffic, and Chapter 15 - Taxation.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Adopt an ordinance to amend and reenact the Isle of Wight County Code.

ATTACHMENTS:

Description	Type	Upload Date
Ordinance Amendment	Ordinance	8/11/2023
Animal Code Revisions	Backup Material	8/11/2023

AN ORDINANCE TO AMEND AND REENACT
THE ISLE OF WIGHT COUNTY CODE
BY AMENDING AND REENACTING
CHAPTER 3. ANIMALS AND FOWL
CHAPTER 7. FIRE PROTECTION
CHAPTER 11. MOTOR VEHICLES AND TRAFFIC
AND
CHAPTER 15. TAXATION

WHEREAS, the Board of Supervisors of Isle of Wight County, Virginia, has deemed it necessary and appropriate to update its current ordinances in order to more clearly set forth local ordinances for the benefit of the public, in order to accurately reflect current practices, to correct inaccuracies, and to conform to those provisions set forth in the Code of Virginia (1950, as amended); and

WHEREAS, the Board of Supervisors deems such a revision necessary as a means to protect the health and welfare of the citizens of Isle of Wight County, Virginia;

NOW, THEREFORE, BE IT ORDAINED by the Isle of Wight County Board of Supervisors that Chapter 3. Animals and Fowl of the Isle of Wight County Code be amended and reenacted as follows:

CHAPTER 3. – ANIMALS AND FOWL

Article I. – In General.

Sec. 3-1.1. Penalties.

Unless otherwise specified, a violation of this chapter shall be deemed a Class 4 misdemeanor and a warrant for the violation may be obtained by an animal control officer or sheriff's deputy. (8-17-23.)

Sec. 3-8.1. Livestock running at large.

It shall be unlawful for the owner of any livestock, poultry or fowl to permit the same to run at large beyond the limits of the boundaries of the lot or tract of land where such animal is normally or regularly confined. For purposes of this subsection, the

boundary lines of each lot or tract of land within the county shall be a lawful fence as to livestock, poultry, and fowl domesticated by man. (8-17-23.)

Article II. – Dogs and Cats.
Division 2. – Running at Large Generally.

Sec. 3-19. - Running at large prohibited within certain zoned areas; "at large" defined; responsibility of owners or custodians.

(a) For the purposes of section, "at large" shall be taken to mean off the premises of the owner and not under the immediate control of the owner, his agent or the custodian of the dog, by a leash, cord or chain; provided that, a dog shall not be considered "at large" if, during the hunting season, it is on a bona fide hunt, in the company of a licensed hunter or during field trials of training periods when accompanied by its owner or custodian.

(b) It shall be unlawful for the owner or custodian of any dog to allow such dog to run at large at any time within any area in the county other than those districts zoned Rural Agricultural Conservation. This exception does not apply to designated mobile home parks and/or trailer parks in Rural Agricultural Conservation Districts nor in the Rushmere Shores Subdivision. It is further, unlawful, for the owner or custodian of any dog to allow such dog to run at large on any garbage collection sites or any other publicly owned property in the County of Isle of Wight.

(c) It shall be the responsibility of owners or custodians of dogs residing within the Rural Agricultural Conservation Districts of the county to control such dogs to prohibit them from roaming in the other areas covered by this section.

(d) It shall be unlawful for the owner of any livestock, poultry or fowl to permit the same to run at large beyond the limits of the boundaries of the lot or tract of land where such animal is normally or regularly confined. For purposes of this subsection, the boundary lines of each lot or tract of land within the county shall be a lawful fence as to livestock, poultry, and fowl domesticated by man.

(d) The owner or custodian of any dog found running at large in a pack shall be subject to a civil penalty in an amount of $100 per dog so found. For the purpose of such

ordinance, a dog shall be deemed to be running at large in a pack if it is running at large in the company of one or more other dogs that are also running at large.
(6-18-15, 10-15-15, 8-17-23.)

Division 5. – Rabies Control Generally.
Sec. 3-25.1. Vaccination or inoculation against rabies required.
The owner or custodian of all dogs and cats four months of age and older shall have such animal currently vaccinated for rabies by a licensed veterinarian or licensed veterinary technician who is under the immediate and direct supervision of a licensed veterinarian on the premises unless otherwise provided by regulations. The supervising veterinarian on the premises shall provide the owner or custodian of the dog or the cat with a rabies vaccination certificate or herd rabies vaccination certificate and shall keep a copy in his own files. The owner or custodian of the dog or the cat shall furnish within a reasonable period of time, upon the request of an animal control officer, humane investigator, law-enforcement officer, State Veterinarian's representative, or official of the Department of Health, the certificate of vaccination for such dog or cat. The vaccine used shall be licensed by the U.S. Department of Agriculture for use in that species. At the discretion of the local health director, a medical record from a licensed veterinary establishment reflecting a currently vaccinated status may serve as proof of vaccination.
Vaccination subsequent to a summons to appear before a court for failure to do so shall not operate to relieve such owner from the penalties or court costs.
Any person violating the provisions of this section shall be subject to the penalties set forth in Section 3-1.1 of this chapter, and each and every violation of this section shall constitute a separate offense. (8-17-23.)

NOW, THEREFORE, BE IT FURTHER ORDAINED by the Isle of Wight County Board of Supervisors, Virginia, that Chapter 7. Fire Protection of the Isle of Wight County Code be amended and reenacted as follows:

CHAPTER 7. – FIRE PROTECTION.
Article II. – Fireworks.
Sec. 7-2. Sale, etc., of certain fireworks unlawful.

(a) Except as otherwise provided in this chapter, it shall be unlawful for any person to transport, manufacture, store, sell, offer for sale, expose for sale, or to buy, use, ignite or explode any firecracker, torpedo, skyrocket, or other substance or thing, of whatever form or construction, that contains any explosive or flammable compound or substance, and is intended, or commonly known, as fireworks and which explodes, rises into the air or travels laterally, or fires projectiles into the air, other than those permissible fireworks described in subsection (b) below.

(b) This section shall not apply to the use or sale of permissible fireworks. For purposes of this section, "permissible fireworks" means shall be as defined in Section 27-95 of the Code of Virginia (1950, as amended), as it may be amended from time to time.

(c) Notwithstanding subsection (b) above, no person may use, ignite or exploded permissible fireworks unless on private property with the consent of the owner of such property.

(d) This section shall have no applicability to any officer or member of the armed forces of this Commonwealth, or of the United States, while acting within the scope of his authority and duties as such, nor to any offer of sale or sale of fireworks to any authorized agent of such armed forces; nor shall it be applicable to the sale or use of materials or equipment, otherwise prohibited by this section, when such materials or equipment is used or to be used by any person for signaling or other emergency use in the operation of any boat, railroad train or other vehicle for the transportation of persons or property.

(e) The fire code official or his designee may, upon special public occasions, issue permits for the display of fireworks by fair associations, amusement parks, or by any organization or group of individuals, under the minimum terms and conditions set forth in the Virginia Statewide Fire Prevention Code. The issuance of such a permit shall not be made unless and until the applicant provides for and enters into a bond or furnish a certificate of insurance, in principle sum of not less than five hundred thousand dollars for the purpose of paying for all damages to any person or property which arise from, or are caused by, the conduct of any act authorized by the permit upon which any judicial judgment results. The terms and conditions of such a permit shall be as prescribed by the fire code official or his designee and no person shall violate the same. (10-2-08; 6-15-17, 8-17-23.)

NOW, THEREFORE, BE IT FURTHER ORDAINED by the Isle of Wight County Board of Supervisors, Virginia, that Chapter 11. Motor Vehicles and Traffic of the Isle of Wight County Code be amended and reenacted as follows:

CHAPTER 11. – MOTOR VEHICLES AND TRAFFIC.

Article II. – Motor Vehicle License Fee.

Sec. 11-18. Special exemptions.

A license fee, as more specifically set forth in the Isle of Wight County Uniform Fee Schedule, as adopted by the board of supervisors, as it may be amended from time to time, is hereby imposed on the following:

(i) Vehicles displaying a National Guard license plate with “NG” designation;

(ii) Vehicles displaying a permanent “Farm use” placard.

Local licenses may be issued free of charge for any and all of the following:

(i) Vehicles owned by volunteer rescue squads;

(ii) Vehicles owned by volunteer fire departments;

(iii) Vehicles owned by active members of volunteer rescue squads;

(iv) Vehicles owned by active members of volunteer fire departments;

(v) Vehicle owned by auxiliary police officers;

(vi) Vehicles owned by disabled veterans;

(vii) Vehicles owned by former prisoners of war;

(viii) Vehicles owned or leased by deputy sheriffs;

(ix) Vehicles owned or leased by police officers;

(x) Vehicles owned or leased by officers of the state police;

(xi) Vehicles owned or leased by salaried firefighters;

(xii) Vehicles owned or leased by salaried emergency medical technicians; and

(xiii) Vehicles owned by former members of volunteer rescue squads or former members of Volunteer fire departments who have served at least ten years in Isle of Wight County;

In no event shall the fee imposed by the County be greater than the annual or one-year fee imposed by the Commonwealth.

In the case of active members of volunteer rescue squads, volunteer fire departments and auxiliary police officers, applications for such licenses shall be accompanied by written evidence, in a form acceptable to the Isle of Wight County Treasurer, of their active membership, and no member shall be issued more than one such license free of charge. (1-4-68, § 3; 1-2-75, § 1; 10-6-77; 9-21-89; 8-16-90, § 3, 12-3-92; 9-21-06; 4-19-07; 9-20-07; 4-16-09; Ord. No. 2013-9-C, 6-20-13; 8-21-04; 9-21-17; 6-18-20, 8-17-23.)

NOW, THEREFORE, BE IT FURTHER ORDAINED by the Isle of Wight County Board of Supervisors, Virginia, that Chapter 15. Taxation of the Isle of Wight County Code be amended and reenacted as follows:

CHAPTER 15. - TAXATION.

Article I. - In General.

Sec. 15-6.1. Certain equipment used by professional fishermen exempt from taxation.

Commercial fishing vessels and property permanently attached to such vessels shall be exempt from taxation. (8-17-23.)

For state law as to authority of county to enact this section, see Code of Va., § 58.1-3506.

Sec. 15-22. Motor vehicles equipped for transportation of physically.

The following tangible personal property is exempt from the tangible personal property tax levies of the board of supervisors:

(a) Motor vehicles specially equipped to provide transportation for physically handicapped individuals who reside in the county.

(b) One motor vehicle owned and used primarily by or for a veteran of the Armed Forces of the United States or the Virginia National Guard who has either lost, or lost the use of, one or both legs, or an arm or hand, or who is blind or who has been rated

by the U.S. Department of Veteran Affairs or its successor agency pursuant to federal law with a one hundred percent service-connected, permanent, and total disability shall be exempt from taxation. Any such motor vehicle owned by a married person may qualify if either spouse is a veteran who is rated one hundred percent service-connected, permanent, and total disabled. The exemption shall expire on the date of the disabled veteran's death and shall not be available for the surviving spouse. In order to qualify, the veteran shall provide a written statement to the commissioner of revenue or other assessing officer from the U.S. Department of Veterans' Affairs or its successor agency pursuant to federal law that the veteran has been so designated or classified by the U.S. Department of Veterans' Affairs as to meet the requirement of this section, and that his disability is service-connected. For purposes of this section, a person is blind if he meets the provisions of section 46.2-739 of the Code of Virginia.

(c) As used in this section, "motor vehicle" means only a passenger car or pickup or panel truck, as those terms are defined in § 46.2-100 of the Code of Virginia, 1950, as amended, that is registered for personal use.

(d) When used in this section, the phrase "motor vehicles specially equipped to provide transportation for physically handicapped individuals," shall refer to any motor vehicle adapted with one (1) or more of the following devices:

(1) Power door operators.

(2) Hand controls.

(3) Lifts or ramps for wheelchairs or scooters.

(4) Special restraints systems for wheelchairs.

(5) Raised door and roof to allow wheelchair entry.

(6) Special steering devices, such as, but not limited, to, "tri-pins" or "V grips."

(7) Driving aids such as, but not limited to, touchpads, low effort power steering, power steering backup, power parking brake or electronic directional signals.

(8) Roll cages.

(9) Such other similar devices.

In addition to the above listed criteria, to qualify as a motor vehicle specially equipped to provide transportation for physically handicapped vehicles, said motor vehicle must be licensed pursuant to § 46.2-731 of the Code of Virginia. (5-17-18; 10-15-20; 4-15-21; 8-17-23.)

Sec. 15-33. Exemption for the elderly and handicapped.

(a) Real estate tax exemption is provided for qualified property owners or partial owners who are either:

(1) Heads of households and sixty-five years of age and older; or

(2) Permanently and totally disabled and who are eligible according to other terms of this section, as provided in subsection (b) of this section.

(b) Exemption shall be granted to qualifying persons subject to the following provisions:

(1) The title of the property for which the exemption is claimed is held, or partially held, on June 30 of the immediately preceding taxable year by the person claiming exemption;

(2) The person claiming the exemption was, as of June 30 for the year immediately preceding the taxable year, either:

a. Sixty-five years of age or older, or

b. Permanently and totally disabled, which, for the purposes of this section, means to be unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment or deformity which can be expected to result in death or can be expected to last for the duration of such person's life.

(3) The total combined income during the immediately preceding calendar year from all sources of the occupants of the dwelling living therein does not exceed fifty four thousand six hundred dollars ($54,600); provided, that the first six thousand five hundred dollars of income of each relative, other than a spouse, of the owner or owners, who is living in the dwelling, shall not be included in such total; and provided further that any disability income received by a relative residing in the dwelling, who is permanently and totally disabled, shall not be included in such total. The county, in subsequent tax years, shall increase the combined income limit by the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) for the twelve-month period ending September 30 of the year immediately preceding the affected tax year, provided such increased amount shall not exceed the limits imposed by section 58.1-3211 of the Code of Virginia (1950, as amended);

(4) The net combined financial worth, including equitable interests, as of December 31 of the immediately preceding calendar year, of the owners and the spouse of any owner, excluding the value of the dwelling and the land not exceeding one acre upon which it is situated, does not exceed two hundred twenty-eight thousand five hundred ninety six dollars ($228,596);

The county shall annually increase the net combined financial worth limit by an amount equivalent to the percentage increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W), for the twelve-month period ending September 30 of the year immediately preceding the affected tax year.

(5) Changes in respect to income, financial worth, ownership of property or other factors occurring during the taxable year for which the statement shown in subsection (e)(2) of this section is filed and having the effect of exceeding or violating the limitations and/or conditions of this section, any relief from real estate tax liability for the current taxable year shall be prorated to the date of such change.

(c) When the person or persons claiming exemption conforms to the standards and does not exceed the limitations contained in this section, the tax exemption is on the sole dwelling and accessory structures that:

(1) House or cover motor vehicles or household goods and personal effects as classified in section 58.1-3503(A)(14) and as listed in section 58.1-3504 of the Code of Virginia (1950, as amended); and

(2) For other than a business purpose owned and occupied by the applicant or applicants and up to one acre of land upon which the dwelling is situated.

(d) If the person is exempt, the real estate described in this section shall be exempt from the following percentages of the real estate taxes based upon the total combined income as described in paragraph (b)(3) above:

Range of Income	Exemption
$0—$31,600.00	100% up to a maximum of $2,000.00
$31,601.00-39,200.00	75% up to a maximum of $2000.00
$39,201.00–46,800.00	50% up to a maximum of $2000.00
$46,800.00-54,600.00	25% up to a maximum of $2000.00
$54,601.00 and above	0%

provided, that if the ownership of the property for which the application is made is not held solely by the applicant, or jointly with the applicant's spouse, than the amount of the tax exemption, hereunder, shall be in proportion to the applicant's ownership interest in the subject real property, as that ownership interest may appear.

(e) (1) The commissioner of the revenue, or his authorized designee, shall administer the exemption according to the general provisions of this section. The commissioner is hereby authorized and directed to prescribe forms and make such further inquiry of persons applying for exemption, including the requirements of answers under oath, production of certified tax returns and appraisal reports or other proofs, as may be reasonably necessary to determine income, financial worth and qualifications.

(2) On a three-year cycle, but not later than October 15 of that third taxable year, unless otherwise approved by the commissioner of the revenue for good cause shown, the person or persons claiming an exemption must file a real estate tax exemption statement with the commissioner of the revenue. The statement shall set forth, in a manner prescribed by the commissioner, the location and assessed value of the property, the names of related persons occupying the dwelling for which exemption is claimed, the gross .combined incomes of such persons, the net combined financial worth of such persons, the age or nature of the disability of the applicant and, if the person is eligible for Social Security, a certification by the Social Security Administration or, if such person is not eligible for social security, a sworn affidavit by two medical doctors licensed to practice in the state, to the effect that such person is permanently and totally disabled as defined in subsection (b)(2)b. of this section.

(3) On such years as a real estate tax exemption statement is not required to be filed with the commissioner of the revenue pursuant to subsection (e)(2), above, the person or persons claiming an exemption shall file an affidavit certifying that no information contained in the statement or last preceding affidavit has changed to violate the limitations and conditions provided in this section.

(f) Any person who has title to real estate transferred to his name after he becomes permanently and totally disabled or reaches age sixty-five, solely for purposes of obtaining the benefits permitted under this section, shall be disqualified from obtaining the exemption created by this section.

(g) When the person or persons claiming exemption do not qualify for said exemption based upon the previous year's income limitations and financial worth limitations, such person may, nonetheless, qualify for the current year by filing an affidavit with the commissioner of the revenue that clearly shows a substantial change in circumstances, that was not volitional on the part of the individual to become eligible for the exemption, and will result in income and financial worth levels that are within those set forth in subsection (d) of this section. Such exemption by the commissioner of the revenue shall be conditioned upon the individual filing another affidavit at the end of the year in which the exemption is granted showing that the actual income and financial worth levels were within the limitations set forth in subsection (d) of this section. If the actual income and financial worth levels exceed the limitations set forth in this section, any exemption shall be nullified for the current taxable year and the taxable year immediately thereafter.

(h) This section shall apply to tax bills due in December 2023, and semiannually thereafter until amended or repealed. (5-17-18; 10-15-20; 8-17-23.)

Adopted this 17th day of August, 2023.

William M. McCarty, Chairman
Isle of Wight Board of Supervisors

Attest:

Carey Mills-Storm, Clerk
Approved as to Form:

Robert W. Jones, Jr., County Attorney

Sec. 3-1.1. Penalties.

Unless otherwise specified, a violation of this chapter shall be deemed a Class 4 misdemeanor and a warrant for the violation may be obtained by an animal control officer or sheriff's deputy.

Sec. 3-8.1. Livestock running at large.

It shall be unlawful for the owner of any livestock, poultry or fowl to permit the same to run at large beyond the limits of the boundaries of the lot or tract of land where such animal is normally or regularly confined. For purposes of this subsection, the boundary lines of each lot or tract of land within the county shall be a lawful fence as to livestock, poultry, and fowl domesticated by man.

Sec. 3-19. - Running at large prohibited within certain zoned areas; "at large" defined; responsibility of owners or custodians.

(a) For the purposes of section, "at large" shall be taken to mean off the premises of the owner and not under the immediate control of the owner, his agent or the custodian of the dog, by a leash, cord or chain; provided that, a dog shall not be considered "at large" if, during the hunting season, it is on a bona fide hunt, in the company of a licensed hunter or during field trials of training periods when accompanied by its owner or custodian.

(b) It shall be unlawful for the owner or custodian of any dog to allow such dog to run at large at any time within any area in the county other than those districts zoned Rural Agricultural Conservation. This exception does not apply to designated mobile home parks and/or trailer parks in Rural Agricultural Conservation Districts nor in the Rushmere Shores Subdivision. It is further, unlawful, for the owner or custodian of any dog to allow such dog to run at large on any garbage collection sites or any other publicly owned property in the County of Isle of Wight.

(c) It shall be the responsibility of owners or custodians of dogs residing within the Rural Agricultural Conservation Districts of the county to control such dogs to prohibit them from roaming in the other areas covered by this section.

~~(d) It shall be unlawful for the owner of any livestock, poultry or fowl to permit the same to run at large beyond the limits of the boundaries of the lot or tract of land where such animal is normally or regularly confined. For purposes of this subsection, the boundary lines of each lot or tract of land within the county shall be a lawful fence as to livestock, poultry, and fowl domesticated by man.~~

(d) The owner or custodian of any dog found running at large in a pack shall be subject to a civil penalty in an amount of $100 per dog so found. For the purpose of such

ordinance, a dog shall be deemed to be running at large in a pack if it is running at large in the company of one or more other dogs that are also running at large.

Sec. 3-25.1. Vaccination or inoculation against rabies required.

The owner or custodian of all dogs and cats four months of age and older shall have such animal currently vaccinated for rabies by a licensed veterinarian or licensed veterinary technician who is under the immediate and direct supervision of a licensed veterinarian on the premises unless otherwise provided by regulations. The supervising veterinarian on the premises shall provide the owner or custodian of the dog or the cat with a rabies vaccination certificate or herd rabies vaccination certificate and shall keep a copy in his own files. The owner or custodian of the dog or the cat shall furnish within a reasonable period of time, upon the request of an animal control officer, humane investigator, law-enforcement officer, State Veterinarian's representative, or official of the Department of Health, the certificate of vaccination for such dog or cat. The vaccine used shall be licensed by the U.S. Department of Agriculture for use in that species. At the discretion of the local health director, a medical record from a licensed veterinary establishment reflecting a currently vaccinated status may serve as proof of vaccination.

Vaccination subsequent to a summons to appear before a court for failure to do so shall not operate to relieve such owner from the penalties or court costs.

Any person violating the provisions of this section shall be subject to the penalties set forth in Section 3-1.1 of this chapter, and each and every violation of this section shall constitute a separate offense.

ISSUE:

Discussion of the Board's Annual Retreat

BACKGROUND:

At its regular meeting on July 13, 2023, the Board, by consensus, expressed its desire to hold its annual retreat on October 25, 2023 in the 757 Room at the Hampton Roads Planning District Commission building in Chesapeake, Virginia.

Supervisor Grice recommend that the Board receive a brief written update from the Chair or supporting staff of each board/commission/committee/task forces for presentation to the Board by County staff. He further recommended more detailed descriptions on each of the legislative priorities.

The Board may wish to discuss any additional subjects and the format for its retreat so staff can begin securing speakers, transportation, etc.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

Per the Board's discussion.

ISSUE:

Discussion Regarding Operating Hours of Area Pharmacies

BACKGROUND:

Citizens have been expressed concerns relative to the sometimes sporadic operating hours of area pharmacies.

The hours of operation are determined by the individual pharmacies. Alteration or interruption of normal operating hours may be attributed to staffing challenges.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

For the Board's information.

BACKGROUND:

The matters attached to this Board report are included as a means of providing information to the Board relative to matters of interest. These items do not require any action by the Board.

BUDGETARY IMPACT:

None

RECOMMENDATION:

For the Board's information.

ATTACHMENTS:

Description	Type	Upload Date
Delinquent Tax Collections - June 2023	Backup Material	8/2/2023
Cash Position - June 2023	Backup Material	8/2/2023
Statement of Treasurers Accountability - June 2023	Backup Material	8/2/2023
Incidents by Zone Map - July 2023	Backup Material	8/2/2023
Incidents by Zone Data - July 2023	Backup Material	8/2/2023
Station Activity Report - July 2023	Backup Material	8/2/2023
Museum Report - July 2023	Backup Material	8/2/2023
Correspondence from WTFC	Backup Material	8/7/2023
Correspondence from IoW Arts League	Backup Material	8/7/2023
Correspondence from Genieve Shelter	Backup Material	8/7/2023

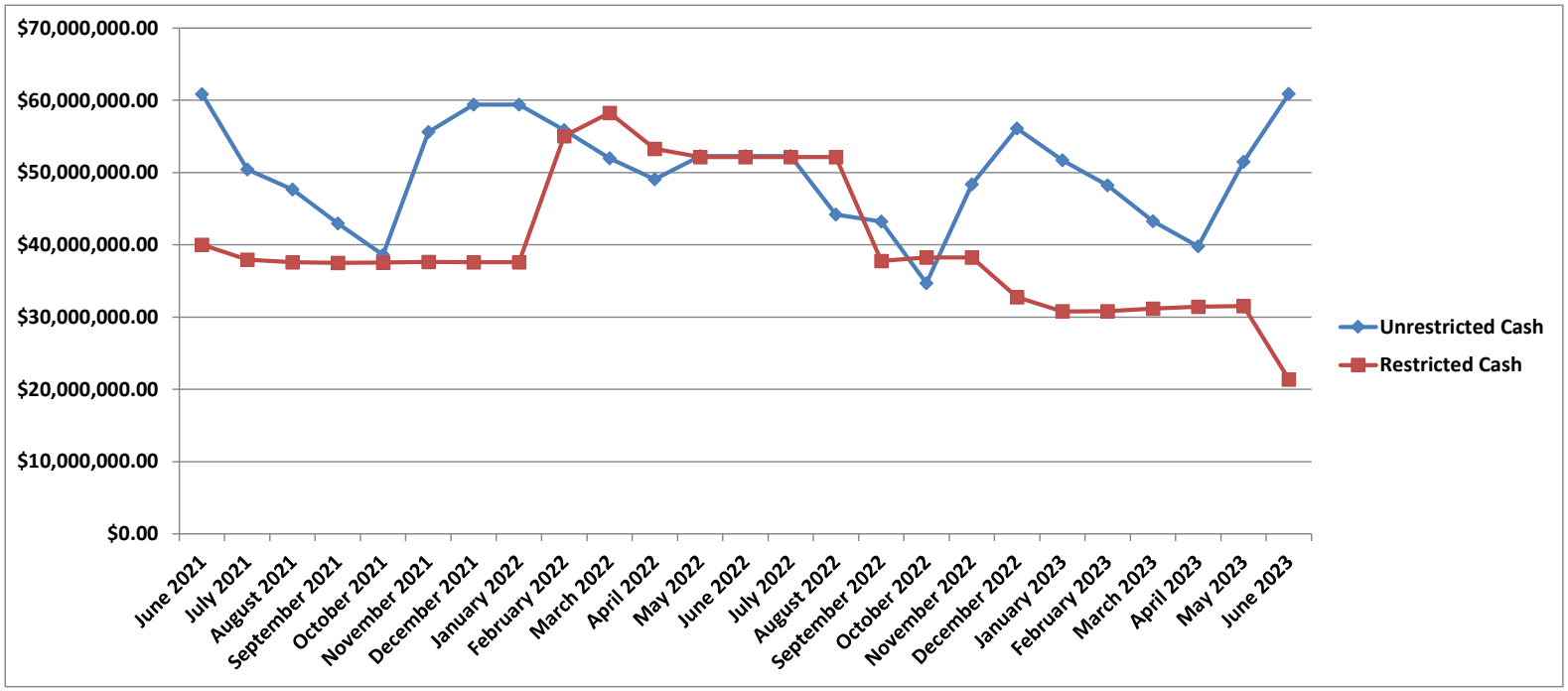
COUNTY OF ISLE OF WIGHT
TAX BILLINGS & COLLECTIONS AS OF JUNE 2023
REAL ESTATE

TAX YEAR	TAX LEVY	SUPPLEMENTS	PUBLIC SERVICE	ADJUSTMENTS & ABATEMENTS	TOTAL TAX LEVIES	TAX COLLECTED	TAX OUTSTDG.	% COLLECTED	% UNC.
Prior 2018					$ 244,983,330.97	$ 244,979,552.53	$ 30,143.49	100.00%	0.01%
2019-2020	$ 39,703,728.23	$ 262,015.20	$ 1,455,114.04	$ (1,133,244.27)	$ 40,287,613.20	$ 40,268,076.92	$ 19,536.28	99.95%	0.05%
2020-2021	$ 40,264,498.73	$ 392,997.95	$ 1,637,435.57	$ (1,257,261.44)	$ 41,037,670.81	$ 40,977,413.37	$ 60,257.44	99.85%	0.15%
2021-2022	$ 41,155,420.28	$ 362,355.07	$ 1,535,777.50	$ (1,499,927.33)	$ 41,553,625.52	$ 41,358,287.95	$ 195,337.57	99.53%	0.47%
2022-2023	$ 41,962,855.68	$ 325,267.50	$ 1,428,098.18	$ (1,793,663.03)	$ 41,922,558.33	$ 40,974,517.90	$ 948,040.43	97.74%	2.26%
				$ -					
Notes:	Only includes 1st half real estate					**DELINQUENT REAL ESTATE =**	$ 1,253,315.21	99.70%	0.31%

PERSONAL PROPERTY

TAX	TAX LEVY	SUPPLEMENTS	PUBLIC SERVICE	ADJUSTMENTS	TOTAL TAX	TAX COLLECTED	TAX OUTSTDG.	% COLLECTED	% UNC.
prior 2015					$ 42,865,013.70	$ 42,479,543.40	$ 108,225.82	99.10%	0.25%
2018	$ 14,385,655.01	$ 1,445,325.25	$ 29,880.46	$ (1,099,931.82)	$ 14,760,928.90	$ 14,705,629.74	$ 55,299.16	99.63%	0.37%
LIC. FEE	$ 995,518.00	$ 172,363.00	$ -	$ (90,335.00)	$ 1,077,546.00	$ 1,064,936.76	$ 12,609.24	98.83%	1.17%
2019	$ 15,920,628.76	$ 1,442,262.52	$ 38,859.89	$ (1,054,518.36)	$ 16,347,232.81	$ 16,255,862.56	$ 91,370.25	99.44%	0.56%
LIC. FEE	$ 986,732.00	$ 154,039.00	$ -	$ (45,484.00)	$ 1,095,287.00	$ 1,077,124.68	$ 18,162.32	98.34%	1.66%
2020	$ 16,352,666.74	$ 1,397,496.09	$ 38,691.28	$ (1,016,573.87)	$ 16,772,280.24	$ 16,645,942.77	$ 126,337.47	99.25%	0.75%
LIC. FEE	$ 942,740.00	$ 130,804.00	$ -	$ (28,480.00)	$ 1,045,064.00	$ 1,023,310.85	$ 21,753.15	97.92%	2.08%
2021	$ 19,301,665.16	$ 1,276,678.72	$ 46,882.14	$ (1,507,908.17)	$ 19,117,317.85	$ 18,852,026.14	$ 265,291.71	98.61%	1.39%
LIC. FEE	$ 959,443.00	$ 161,825.00	$ -	$ (37,973.00)	$ 1,083,295.00	$ 1,049,537.05	$ 33,757.95	96.88%	3.12%
2022	$ 22,290,687.31	$ 2,030,935.74	$ 34,783.40	$ (1,713,283.18)	$ 22,643,123.27	$ 21,497,138.60	$ 1,145,984.67	94.94%	5.06%
LIC. FEE	$ 971,360.00	$ 126,954.00	$ -	$ (31,773.70)	$ 1,066,540.30	$ 986,356.62	$ 80,183.68	92.48%	7.52%
2023	$ 7,749,736.57	$ 436,560.28		$ (358,305.49)	$ 7,827,991.36	$ 5,879,966.46	$ 1,948,024.90	75.11%	24.89%
LIC. FEE	$ 990,267.00	$ 52,891.00		$ (16,710.00)	$ 1,026,448.00	$ 717,401.73	$ 309,046.27	69.89%	30.11%
						DELINQUENT PERSONAL PROP. =	$ 4,216,046.59	96.94%	2.87%
						TOTAL DELINQUENT=	**$ 5,469,361.80**	98.97%	0.98%

CASH POSITION



COUNTY OF ISLE OF WIGHT



STATEMENT OF THE TREASURER'S ACCOUNTABILITY

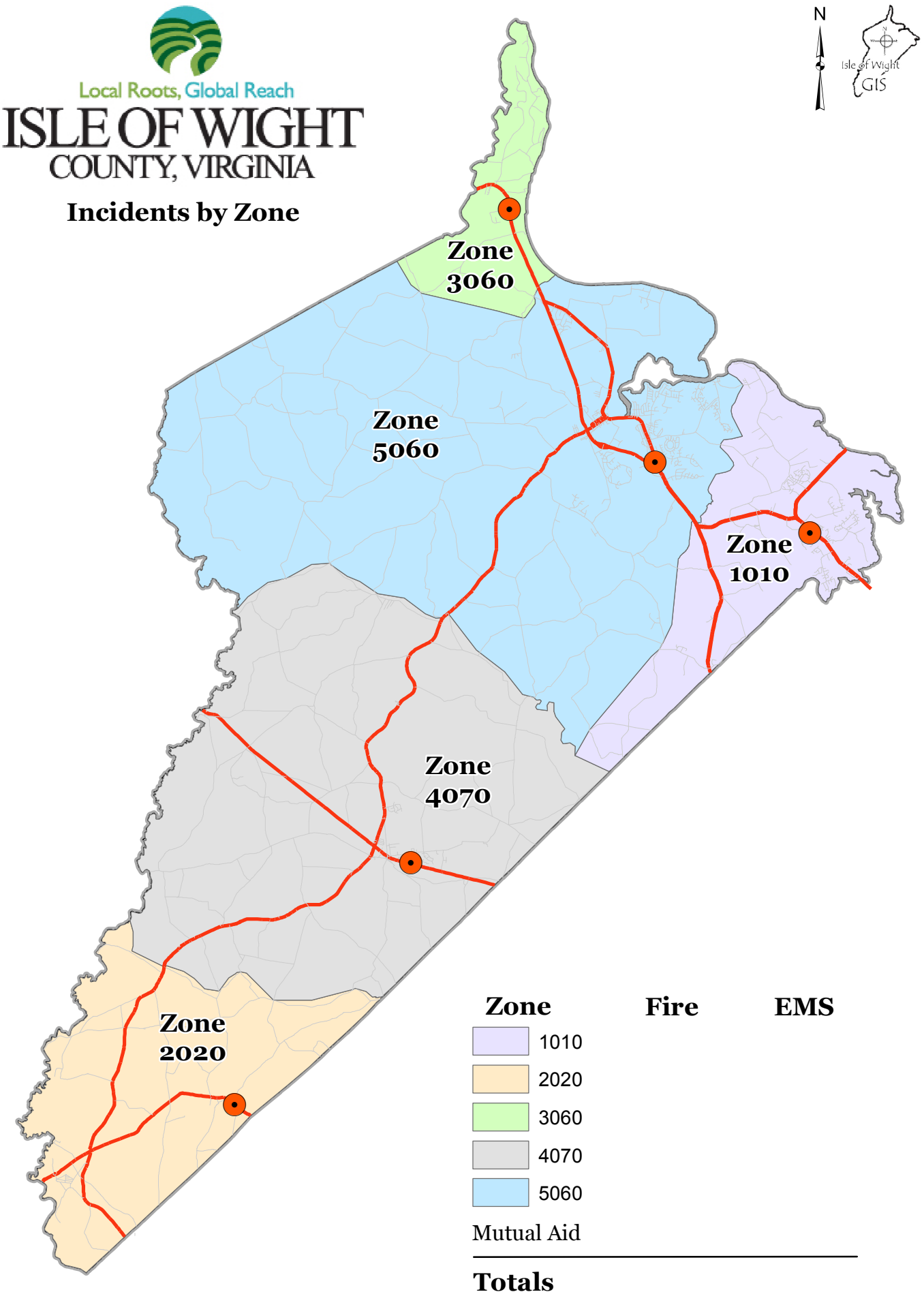
June 2023

Institution	Instrument	Rate	Balance	Previous Year Balance
	Cash			
	Petty Cash		$2,300.00	$1,950.00
SUB TOTAL				
	Checking Accounts			
Bank of America	General Fund Checking	2.18%	$27,097,449.91	$23,261,973.29
Bank of America	School General Fund Checking	2.18%	$2,205,890.88	$1,299,306.44
Bank of America	DSS General Fund Checking	2.18%	$2,602,389.58	$2,447,391.44
Bank of America	County Payroll Account	2.28%	$98,807.60	$84,826.33
Bank of America	School Payroll Account	2.28%	$424.41	$455.33
Bank of America	DSS Payroll Account	2.28%	$3,180.84	$0.00
SUB TOTAL			**$32,008,143.22**	**$27,093,952.83**
	Investments			
Bank of America	Emergency Fund Checking	2.28%	$2,644.45	$2,602.83
LGIP	General Fund Investment	5.24%	$20,007,603.41	$24,208,408.69
VIP	VIP Long Term	5.25%	$78,813.85	$78,707.09
VIP	VIP Short Term	5.25%	$8,797,419.75	$13,278,596.04
SUB TOTAL			**$28,886,481.46**	**$37,568,314.65**
	Restricted Funds			
Bank of America	School Escrow Fund	2.28%	$0.00	$0.00
Bank of America	General Recoupment Funds	2.28%	$15,098.57	$17,388.93
Bank of America	Special Welfare Funds	2.28%	$0.00	$0.00
Bank of America	Special Welfare Donated Funds	2.28%	$18,445.98	$3,268.08
Bank of America	Special Welfare Child Support	2.28%	$248.64	$496.31
Bank of America	School's Camp Foundation	2.28%	$25,316.90	$24,918.37
Farmers Bank	School Food Service Funds	1.00%	$1,496,187.91	$782,496.43
BNY Mellon	Pace Funds		$2,217,570.48	$2,433,877.21
Bank of America	County Escrow Fund	2.28%	$10,790.05	$6,284.32
SUB TOTAL			**$3,783,658.53**	**$3,268,729.65**
	Bond Proceeds--Invested in SNAP			
	2012 Public Utility Bond	5.32%	$0.00	$1,873,229.55
	2012 Public Utility Bond Interest	5.32%	$0.00	$338,629.23
	2016 Bond	5.32%	$236,699.44	$352,940.58
	2016 Bond Interest	5.32%	$223,251.31	$201,610.00
	2020A Bond	5.32%	$3,815,415.50	$24,185,894.46
	2020A Bond Interest	5.32%	$511,563.75	$111,497.44
	2022 GO Bond	5.32%	$12,042,004.60	$18,509,158.87
	2022 GO Bond Interest	5.32%	$775,264.33	$45,794.18
SUB TOTAL			**$17,604,198.93**	**$45,618,754.31**
TOTAL OF ALL FUNDS			**$82,284,782.14**	**$113,551,701.44**

Local Roots, Global Reach

ISLE OF WIGHT COUNTY, VIRGINIA

Incidents by Zone



ISLE OF WIGHT

Incident by Zone

Agency: IWFR, Event date/Time range: 07/01/2023 00:00:00 - 07/31/2023 23:59:59

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	ACCIDENT UNKNOWN INJURIES	0	4	4	44%	0:01:25	0:09:30	1:11:55	4:18:59	1:04:45
	UNCONSCIOUS OR FAINTING	0	1	1	11%	0:01:57	0:00:00	0:00:00	0:10:12	0:10:12
	Subtotals for EMS	**0**	**5**	**5**	**56%**	**0:01:41**	**0:09:30**	**1:11:55**	**4:29:11**	**0:37:28**
	ASSIST BOATER	0	1	1	11%	0:04:41	0:11:29	1:09:03	1:25:13	1:25:13
	FIRE OTHER NOT LISTED	1	0	1	11%	0:00:03	0:00:00	0:04:54	0:04:57	0:04:57
	STANDBY	1	0	1	11%	0:00:00	0:00:00	3:52:52	3:52:52	3:52:52
	Subtotals for FIRE	**2**	**1**	**3**	**33%**	**0:02:22**	**0:11:29**	**1:42:16**	**5:23:02**	**1:47:41**
	RESCUE MUTUAL AID	0	1	1	11%	0:02:37	0:10:27	0:37:21	0:50:25	0:50:25
	Subtotals for MUTA	**0**	**1**	**1**	**11%**	**0:02:37**	**0:10:27**	**0:37:21**	**0:50:25**	**0:50:25**
	Totals for	**2**	**7**	**9**	**100%**	**0:02:09**	**0:10:29**	**1:23:13**	**10:42:38**	**1:14:44**
1010	ABDOMINAL PAIN	0	5	5	5%	0:01:56	0:09:29	1:38:39	9:10:21	1:50:04
	ACCIDENT UNKNOWN INJURIES	0	2	2	2%	0:02:23	0:08:29	0:28:27	1:10:09	0:35:05
	ACCIDENT WITH INJURIES	0	3	3	3%	0:02:19	0:09:03	0:53:57	3:15:57	1:05:19
	ALARM - MEDICAL	0	2	2	2%	0:02:42	0:10:11	0:09:14	0:44:13	0:22:07
	ALLERGIC REACTIONS	0	5	5	5%	0:01:48	0:08:39	0:53:50	5:21:31	1:04:18
	ASSAULT WITH INJURIES	0	1	1	1%	0:01:30	0:14:39	0:14:44	0:30:53	0:30:53
	BACK PAIN (NON TRAUMATIC)	0	1	1	1%	0:01:59	0:08:46	1:17:28	1:28:13	1:28:13
	BLEEDING/HEMORRHAGING	0	1	1	1%	0:00:45	0:07:09	0:16:09	0:24:03	0:24:03
	CARDIAC ARREST	0	1	1	1%	0:00:05	0:08:27	0:27:17	0:35:49	0:35:49
	CHEST PAIN	1	12	13	13%	0:01:16	0:07:28	1:23:49	18:27:42	1:25:12
	CHILD OR ANIMAL LOCKED IN CAR	0	1	1	1%	0:00:44	0:08:00	0:07:28	0:16:12	0:16:12
	DIFFICULTY BREATHING	0	10	10	10%	0:01:24	0:07:05	0:54:37	10:30:51	1:03:05

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	EYE INJURIES	0	1	1	1%	0:00:29	0:06:52	0:02:49	0:10:10	0:10:10
	FALLS AND RELATED INJURIES	0	5	5	5%	0:01:48	0:09:24	1:15:59	7:16:00	1:27:12
	FRACTURES OR BROKEN BONES	0	1	1	1%	0:02:39	0:10:56	1:10:26	1:24:01	1:24:01
	HEAD INJURY	0	1	1	1%	0:01:20	0:07:51	0:26:28	0:35:39	0:35:39
	HEART PROBLEMS	0	3	3	3%	0:01:25	0:06:12	0:56:15	3:11:40	1:03:53
	HEAT AND COLD EXPOSURE	0	4	4	4%	0:01:51	0:06:11	0:43:05	3:24:28	0:51:07
	LIFT ASSIST	0	4	4	4%	0:02:29	0:09:57	0:56:27	4:35:34	1:08:54
	PAIN	0	6	6	6%	0:01:50	0:07:00	1:21:02	8:59:11	1:29:52
	POSSIBLE DOA	0	1	1	1%	0:01:50	0:05:41	0:52:32	1:00:03	1:00:03
	PSYCHIATRIC PROBLEMS	0	2	2	2%	0:00:21	0:08:29	0:45:52	1:49:24	0:54:42
	SICK / ILL OR RESCUE	0	14	14	13%	0:01:41	0:07:33	1:07:27	17:53:48	1:16:42
	STROKE	0	2	2	2%	0:01:51	0:04:35	1:23:22	2:59:36	1:29:48
	SUICIDE	0	1	1	1%	0:01:30	0:09:38	0:32:37	0:43:45	0:43:45
	UNCONSCIOUS OR FAINTING	0	4	4	4%	0:01:16	0:08:05	0:50:27	3:59:11	0:59:48
	Subtotals for EMS	**1**	**93**	**94**	**90%**	**0:01:35**	**0:08:18**	**0:48:52**	**109:58:24**	**0:58:18**
	ARCING WIRES DOWN POWER LINES	0	1	1	1%	0:03:22	0:05:20	0:15:26	0:24:08	0:24:08
	BURNING COMPLAINT	0	2	2	2%	0:02:43	0:04:16	0:15:13	0:44:23	0:22:12
	CAR FIRE	0	1	1	1%	0:01:59	0:02:59	0:04:44	0:09:42	0:09:42
	CARBON MONOXIDE ALARM	0	1	1	1%	0:01:08	0:09:21	0:21:03	0:31:32	0:31:32
	FIRE ALARM	0	3	3	3%	0:01:43	0:08:00	0:13:31	1:09:43	0:23:14
	FIRE OTHER NOT LISTED	0	1	1	1%	0:00:34	0:04:09	0:05:54	0:10:37	0:10:37
	STRUCTURE FIRE	0	1	1	1%	0:03:08	0:05:35	0:54:29	1:03:12	1:03:12
	Subtotals for FIRE	**0**	**10**	**10**	**10%**	**0:02:05**	**0:05:40**	**0:18:37**	**4:13:17**	**0:26:22**
	Totals for 1010	**1**	**103**	**104**	**100%**	**0:01:41**	**0:07:45**	**0:42:27**	**114:11:41**	**0:51:32**
2020	ABDOMINAL PAIN	0	2	2	7%	0:01:08	0:11:25	0:33:29	1:32:03	0:46:02
	ACCIDENT UNKNOWN INJURIES	1	0	1	4%	0:00:00	0:00:00	0:24:37	0:24:37	0:24:37

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	BLEEDING/HEMORRHAGING	0	1	1	4%	0:02:13	0:11:52	1:24:31	1:38:36	1:38:36
	CHEST PAIN	0	3	3	11%	0:00:51	0:10:10	0:38:33	2:28:43	0:49:34
	DIABETIC PROBLEMS	0	2	2	7%	0:01:39	0:12:17	1:44:53	3:57:39	1:58:50
	DIFFICULTY BREATHING	0	3	3	11%	0:01:46	0:10:54	0:47:07	2:59:21	0:59:47
	FALLS AND RELATED INJURIES	0	1	1	4%	0:04:22	0:09:30	0:03:15	0:17:07	0:17:07
	PAIN	0	5	5	19%	0:01:32	0:10:06	0:42:51	4:32:30	0:54:30
	SEIZURE	0	1	1	4%	0:00:47	0:08:39	0:34:04	0:43:30	0:43:30
	SICK / ILL OR RESCUE	0	2	2	7%	0:01:35	0:15:31	0:37:55	1:50:01	0:55:01
	STROKE	0	1	1	4%	0:02:25	0:13:23	0:50:23	1:06:11	1:06:11
	UNCONSCIOUS OR FAINTING	0	1	1	4%	0:00:33	0:10:40	0:57:32	1:08:45	1:08:45
	Subtotals for EMS	**1**	**22**	**23**	**85%**	**0:01:43**	**0:11:19**	**0:46:36**	**22:39:03**	**0:58:32**
	FIRE ALARM	0	1	1	4%	0:01:52	0:08:56	0:21:22	0:32:10	0:32:10
	FIRE OTHER NOT LISTED	0	2	2	7%	0:02:20	0:07:39	1:18:28	2:56:53	1:28:27
	STRUCTURE FIRE	0	1	1	4%	0:00:30	0:07:16	0:28:11	0:35:57	0:35:57
	Subtotals for FIRE	**0**	**4**	**4**	**15%**	**0:01:34**	**0:07:57**	**0:42:40**	**4:05:00**	**0:52:11**
	Totals for 2020	**1**	**26**	**27**	**100%**	**0:01:41**	**0:10:36**	**0:45:49**	**26:44:03**	**0:57:16**
3060	ABRASIONS BRUISES ETC	0	1	1	6%	0:01:44	0:11:51	1:46:24	1:59:59	1:59:59
	ACCIDENT UNKNOWN INJURIES	0	1	1	6%	0:03:12	0:00:00	0:00:00	0:13:02	0:13:02
	ALARM - MEDICAL	0	2	2	11%	0:01:56	0:17:04	0:09:07	0:41:16	0:20:38
	BLEEDING/HEMORRHAGING	0	2	2	11%	0:02:49	0:15:19	1:18:00	3:12:15	1:36:08
	CARDIAC ARREST	0	1	1	6%	0:01:24	0:10:12	0:38:56	0:50:32	0:50:32
	CHEST PAIN	0	1	1	6%	0:01:49	0:15:07	0:15:44	0:32:40	0:32:40
	DIFFICULTY BREATHING	0	1	1	6%	0:02:47	0:14:54	1:32:38	1:50:19	1:50:19
	FALLS AND RELATED INJURIES	0	1	1	6%	0:01:21	0:12:07	1:42:55	1:56:23	1:56:23
	HEART PROBLEMS	0	1	1	6%	0:01:04	0:16:30	1:35:47	1:53:21	1:53:21
	SICK / ILL OR RESCUE	0	3	3	17%	0:02:46	0:15:43	0:59:15	3:53:13	1:17:44

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	Subtotals for EMS	**0**	**14**	**14**	**78%**	**0:02:05**	**0:14:19**	**1:06:32**	**17:03:00**	**1:15:05**
	ARCING WIRES DOWN POWER LINES	0	1	1	6%	0:01:15	0:11:02	0:38:09	0:50:26	0:50:26
	CAR FIRE	0	1	1	6%	0:00:17	0:08:58	0:14:36	0:23:51	0:23:51
	CARBON MONOXIDE ALARM	0	1	1	6%	0:02:38	0:17:15	1:03:28	1:23:21	1:23:21
	FIRE OTHER NOT LISTED	0	1	1	6%	0:00:05	0:00:00	1:18:30	1:18:35	1:18:35
	Subtotals for FIRE	**0**	**4**	**4**	**22%**	**0:01:04**	**0:12:25**	**0:48:41**	**3:56:13**	**0:59:03**
	Totals for 3060	**0**	**18**	**18**	**100%**	**0:01:48**	**0:13:50**	**1:01:02**	**20:59:13**	**1:10:30**
4070	ABDOMINAL PAIN	0	3	3	2%	0:01:40	0:09:21	1:32:56	5:11:54	1:43:58
	ABRASIONS BRUISES ETC	1	2	3	2%	0:01:16	0:09:44	0:21:38	1:37:57	0:32:39
	ACCIDENT UNKNOWN INJURIES	0	8	8	6%	0:01:44	0:06:04	0:58:52	8:53:19	1:06:40
	ACCIDENT WITH ENTRAPMENT	0	2	2	1%	0:00:43	0:06:01	2:48:24	5:50:14	2:55:07
	ACCIDENT WITH INJURIES	0	2	2	1%	0:00:26	0:09:24	1:13:29	2:46:37	1:23:19
	ALARM - MEDICAL	0	3	3	2%	0:02:46	0:07:44	0:05:01	0:46:36	0:15:32
	ASSIST OTHER JURISDICTION	0	1	1	1%	0:00:17	0:05:23	0:22:27	0:28:07	0:28:07
	BLEEDING/HEMORRHAGING	0	4	4	3%	0:01:38	0:14:08	1:06:37	5:29:31	1:22:23
	CHEST PAIN	0	7	7	5%	0:01:30	0:09:05	1:02:26	8:31:13	1:13:02
	DIFFICULTY BREATHING	0	6	6	4%	0:02:13	0:06:58	0:59:49	6:54:01	1:09:00
	FALLS AND RELATED INJURIES	0	12	12	9%	0:01:33	0:09:44	0:56:36	13:34:34	1:07:53
	FRACTURES OR BROKEN BONES	0	1	1	1%	0:01:44	0:03:55	0:53:47	0:59:26	0:59:26
	HEAD INJURY	0	2	2	1%	0:01:11	0:10:59	0:51:23	2:07:05	1:03:33
	HEADACHE	0	1	1	1%	0:02:52	0:05:39	0:38:19	0:46:50	0:46:50
	HEART PROBLEMS	0	1	1	1%	0:03:28	0:05:20	0:18:02	0:26:50	0:26:50
	HEAT AND COLD EXPOSURE	0	1	1	1%	0:01:14	0:04:01	1:22:23	1:27:38	1:27:38
	LIFT ASSIST	0	10	10	7%	0:01:26	0:09:03	0:14:35	4:10:43	0:25:04

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	OBSTETRICS	0	1	1	1%	0:01:59	0:08:11	0:11:35	0:21:45	0:21:45
	OVERDOSE	0	1	1	1%	0:01:19	0:15:21	1:26:20	1:43:00	1:43:00
	PAIN	0	7	7	5%	0:01:41	0:14:04	1:08:44	9:51:27	1:24:30
	POSSIBLE DOA	0	1	1	1%	0:18:27	0:06:12	0:08:36	0:33:15	0:33:15
	PSYCHIATRIC PROBLEMS	0	2	2	1%	0:00:40	0:10:12	1:12:00	2:45:43	1:22:52
	SEIZURE	1	5	6	4%	0:01:47	0:07:36	1:02:34	7:11:45	1:11:58
	SICK / ILL OR RESCUE	1	27	28	21%	0:01:40	0:10:19	0:57:07	30:20:15	1:05:01
	UNCONSCIOUS OR FAINTING	1	3	4	3%	0:02:49	0:03:37	1:16:55	5:33:24	1:23:21
	WELFARE CHECK	1	0	1	1%	0:00:27	0:00:00	0:00:00	1:19:12	1:19:12
	Subtotals for EMS	**5**	**113**	**118**	**87%**	**0:02:15**	**0:08:19**	**0:55:37**	**129:42:21**	**1:06:37**
	BRUSH FIRE	0	1	1	1%	0:01:18	0:10:13	1:06:36	1:18:07	1:18:07
	CAR FIRE	0	1	1	1%	0:00:15	0:13:21	0:10:13	0:23:49	0:23:49
	FIRE ALARM	0	9	9	7%	0:01:52	0:06:12	0:20:23	3:50:51	0:25:39
	FIRE OTHER NOT LISTED	1	1	2	1%	0:00:49	0:10:49	0:16:40	0:45:46	0:22:53
	SMELL OF GAS INSIDE/OUTSIDE	0	1	1	1%	0:01:42	0:04:56	0:23:15	0:29:53	0:29:53
	STANDBY	2	0	2	1%	0:00:01	0:00:00	5:30:57	11:01:55	5:30:58
	STRUCTURE FIRE	0	1	1	1%	0:01:18	0:04:43	0:13:23	0:19:24	0:19:24
	Subtotals for FIRE	**3**	**14**	**17**	**13%**	**0:01:02**	**0:08:22**	**1:08:47**	**18:09:45**	**1:15:49**
	Totals for 4070	**8**	**127**	**135**	**100%**	**0:02:00**	**0:08:20**	**0:58:30**	**147:52:06**	**1:08:34**
5060	ABDOMINAL PAIN	0	2	2	1%	0:01:17	0:13:32	1:11:15	2:52:07	1:26:04
	ABRASIONS BRUISES ETC	1	2	3	1%	0:01:05	0:09:43	0:27:27	1:54:47	0:38:16
	ACCIDENT UNKNOWN INJURIES	2	8	10	4%	0:01:07	0:05:02	0:43:25	7:01:44	0:42:10
	ACCIDENT WITH ENTRAPMENT	0	3	3	1%	0:01:39	0:06:55	0:51:24	2:59:57	0:59:59
	ACCIDENT WITH INJURIES	0	5	5	2%	0:01:31	0:05:45	1:27:25	7:53:27	1:34:41
	ALARM - MEDICAL	0	3	3	1%	0:02:25	0:13:28	0:29:41	2:16:40	0:45:33
	ALLERGIC REACTIONS	0	2	2	1%	0:01:03	0:07:10	0:05:52	0:28:09	0:14:05

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	ASSAULT WITH INJURIES	0	1	1	0%	0:14:50	0:08:03	0:10:37	0:33:30	0:33:30
	BITE	0	2	2	1%	0:01:29	0:15:25	0:55:40	2:25:08	1:12:34
	BLEEDING/HEMORRHAGING	0	4	4	2%	0:02:05	0:06:29	0:34:10	2:50:57	0:42:44
	CARDIAC ARREST	0	3	3	1%	0:01:38	0:10:07	0:47:18	2:57:08	0:59:03
	CHEST PAIN	1	9	10	4%	0:01:41	0:09:56	1:09:02	13:16:38	1:19:40
	CHILD OR ANIMAL LOCKED IN CAR	0	1	1	0%	0:00:40	0:00:00	0:00:00	0:04:17	0:04:17
	DIABETIC PROBLEMS	0	5	5	2%	0:01:14	0:07:38	1:01:52	5:53:43	1:10:45
	DIFFICULTY BREATHING	0	24	24	11%	0:01:27	0:10:47	0:58:39	28:21:11	1:10:53
	EYE INJURIES	0	3	3	1%	0:01:21	0:13:10	0:49:29	3:12:00	1:04:00
	FALLS AND RELATED INJURIES	1	28	29	13%	0:01:54	0:11:22	0:51:28	31:04:43	1:04:18
	FRACTURES OR BROKEN BONES	0	1	1	0%	0:03:21	0:06:09	2:21:01	2:30:31	2:30:31
	HEAD INJURY	0	1	1	0%	0:00:59	0:06:49	1:12:45	1:20:33	1:20:33
	HEADACHE	0	2	2	1%	0:00:22	0:08:40	0:36:22	1:30:48	0:45:24
	HEART PROBLEMS	0	9	9	4%	0:01:47	0:09:28	0:57:44	10:20:56	1:09:00
	HEAT AND COLD EXPOSURE	0	3	3	1%	0:01:19	0:11:11	1:01:45	3:42:47	1:14:16
	LIFT ASSIST	0	13	13	6%	0:01:36	0:10:22	0:17:02	6:01:40	0:27:49
	OBSTETRICS	0	1	1	0%	0:00:27	0:43:15	0:09:03	0:52:45	0:52:45
	OVERDOSE	0	2	2	1%	0:01:29	0:08:14	0:38:02	1:35:30	0:47:45
	PAIN	0	11	11	5%	0:02:00	0:11:19	1:06:03	16:35:20	1:30:29
	POSSIBLE DOA	0	1	1	0%	0:01:18	0:14:43	0:34:07	0:50:08	0:50:08
	PSYCHIATRIC PROBLEMS	0	3	3	1%	0:00:21	0:12:59	0:42:48	2:48:26	0:56:09
	SEIZURE	0	2	2	1%	0:01:00	0:07:10	0:47:29	1:51:18	0:55:39
	SICK / ILL OR RESCUE	3	42	45	20%	0:01:39	0:10:59	1:07:34	57:37:17	1:16:50
	STROKE	1	5	6	3%	0:00:47	0:11:51	1:05:33	7:49:08	1:18:11
	UNCONSCIOUS OR FAINTING	0	7	7	3%	0:01:08	0:06:33	0:38:40	5:48:54	0:49:51
	Subtotals for EMS	**9**	**208**	**217**	**95%**	**0:01:49**	**0:10:47**	**0:50:01**	**237:22:07**	**1:00:52**
	ASSIST BOATER	0	1	1	0%	0:00:33	0:08:47	1:18:53	1:28:13	1:28:13

Station/Beat Code	Nature Code	Self Init	CFS	Total	% Total	Avg Disp Time	Avg Resp Time	Avg Scene Time	Total Call Time	Avg Call Time
	CARBON MONOXIDE ALARM	0	2	2	1%	0:02:33	0:09:09	0:11:15	0:45:53	0:22:57
	FIRE ALARM	0	6	6	3%	0:01:36	0:07:04	0:11:22	1:46:12	0:17:42
	FIRE DEPT COMMUNITY RELATIONS	1	0	1	0%	0:00:00	0:00:00	3:44:37	3:44:37	3:44:37
	STRUCTURE FIRE	0	1	1	0%	0:03:14	0:06:07	0:17:36	0:26:57	0:26:57
	Subtotals for FIRE	**1**	**10**	**11**	**5%**	**0:01:59**	**0:07:47**	**1:08:45**	**8:11:52**	**1:16:05**
	Totals for 5060	**10**	**218**	**228**	**100%**	**0:01:50**	**0:10:26**	**0:52:37**	**245:33:59**	**1:02:56**
FRA	FIRE MUTUAL AID	0	1	1	50%	0:01:59	0:08:35	0:50:44	1:01:18	1:01:18
	RESCUE MUTUAL AID	0	1	1	50%	0:01:13	0:13:01	0:50:28	1:04:42	1:04:42
	Subtotals for MUTA	**0**	**2**	**2**	**100%**	**0:01:36**	**0:10:48**	**0:50:36**	**2:06:00**	**1:03:00**
	Totals for FRA	**0**	**2**	**2**	**100%**	**0:01:36**	**0:10:48**	**0:50:36**	**2:06:00**	**1:03:00**
SOU	RESCUE MUTUAL AID	0	1	1	100%	0:01:56	0:18:47	1:33:05	1:53:48	1:53:48
	Subtotals for MUTA	**0**	**1**	**1**	**100%**	**0:01:56**	**0:18:47**	**1:33:05**	**1:53:48**	**1:53:48**
	Totals for SOU	**0**	**1**	**1**	**100%**	**0:01:56**	**0:18:47**	**1:33:05**	**1:53:48**	**1:53:48**
SRY	RESCUE MUTUAL AID	0	5	5	100%	0:00:55	0:21:45	0:38:54	3:46:45	0:45:21
	Subtotals for MUTA	**0**	**5**	**5**	**100%**	**0:00:55**	**0:21:45**	**0:38:54**	**3:46:45**	**0:45:21**
	Totals for SRY	**0**	**5**	**5**	**100%**	**0:00:55**	**0:21:45**	**0:38:54**	**3:46:45**	**0:45:21**
SUF	FIRE MUTUAL AID	0	1	1	50%	0:02:37	0:00:00	0:00:00	0:46:31	0:46:31
	RESCUE MUTUAL AID	0	1	1	50%	0:01:41	0:09:47	0:58:47	1:10:15	1:10:15
	Subtotals for MUTA	**0**	**2**	**2**	**100%**	**0:02:09**	**0:09:47**	**0:58:47**	**1:56:46**	**0:58:23**
	Totals for SUF	**0**	**2**	**2**	**100%**	**0:02:09**	**0:09:47**	**0:58:47**	**1:56:46**	**0:58:23**

ISLE OF WIGHT COUNTY

FIRE-EMS ACTIVITY REPORT 2023

STATION RESPONSES	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	YTD
CARROLLTON	121	128	141	117	107	142	128						884
CARRSVILLE	40	37	30	49	47	37	42						282
RUSHMERE	4	7	7	5	2	8	7						40
WINDSOR FIRE	30	37	37	33	25	33	34						229
SMITHFIELD FIRE	61	63	76	47	52	76	52						427
IOW RESCUE	264	267	289	223	249	256	275						1823
WINDSOR RESCUE	119	113	114	106	121	106	131						810
TOTAL STATION RESPONSES													**4495**

VOL. ACTIVITY HOURS	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER	YTD
CARROLLTON					0
CARRSVILLE					
RUSHMERE					0
WINDSOR FIRE					0
SMITHFIELD FIRE					
IOW RESCUE					
WINDSOR RESCUE					0
TOTAL VOL. HOURS REPORTED					**0**

Note: *1. Station Responses- Data pulled from E911 Computer Aided Dispatch (CAD) system* *n/r not reported*

2. VOL. Activity Hours- Information as reported by Volunteer Agencies

Isle of Wight County Museum &
Isle of Wight County Historic Resources



July 2023 Report

J.L. England, Museum Director & Isle of Wight County Historic Resources Manager

Isle of Wight County Museum 103 Main Street, Smithfield

- **VISITATION**: 949
- **SPECIAL EVENTS**
    - **July 1. STICK WITH US AND CELEBRATE NATIONAL POSTAGE STAMP DAY.** Join us as we explore local history represented, sometimes indirectly, on official United States postage stamps. If you are a serious philatelist, amateur collector or just enjoy the beauty and wonderfulness of those small works of art seen daily on letters and other mail items, come out to the museum for an entertaining and educational trip through Isle of Wight County and U.S. history. 12 guests.
    - **July 7. NIGHT AT THE MUSEUM: THE WORLD'S OLDEST HAM'S BIRTHDAY SLEEPOVER**. Calling all well-loved teddy bears, dogs, unicorns and hippos for a NIGHT AT THE MUSEUM! The World's Oldest Ham's birthday is tomorrow, and he'd like nothing more than to have an evening of fun with some of his friends. Kids are encouraged to put on their PJs and bring their favorite stuffed animal or doll to the museum. Museum staff will read a bedtime story or two before our special guests are tucked in. Kids will head home, but their stuffed animal friends will stay the night. Pick up the overnight guests on the morning of the World's Oldest Ham's birthday while hearing about everyone's adventures. Representatives from Blackwater Regional Library will also be here to help us celebrate. 42 guests.
    - **July 8. 21 AGAIN! THE WORLD'S OLDEST HAM'S 121ST BIRTHDAY.** The world's oldest ham turns 121. That means that he's turning 21 again, and in true coming of age fashion, the World's Oldest Ham has told staff that he wishes to celebrate with mocktails and cake. Write a song for his big day – or sing an old standard – once we flip on the karaoke machine. This year, he wants to be serenaded. Join us in this annual family-friendly tribute to the birthday boy with games, the singing of *Hammy Birthday* and the cutting of cake. Representatives and books from Blackwater Regional Library will also be here to help us celebrate. 100 guests.
    - **July 28. JAMESTOWN BRIDES: MAIL ORDER BRIDES OR ENTREPRENEURS?** Who were these 17th century women who left Britain to become wives for tobacco planters in the new colony? Why did they decide to leave their lives to venture to a new and uncharted territory? Were they prepared for the hardships and the unknown? Join us while we explore the lives of the Jamestown Tobacco Brides with author and historian Kelly Parker. 32 guests.





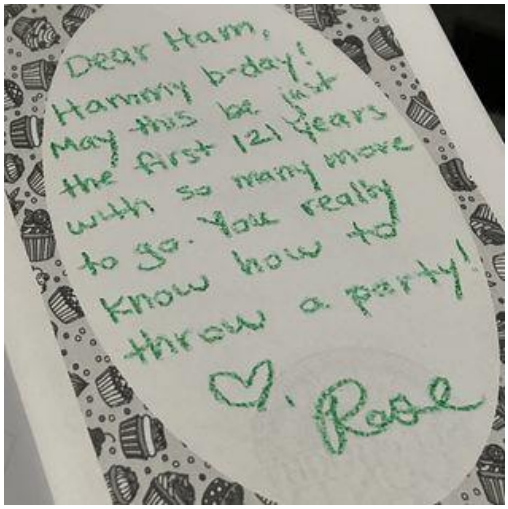




- **LIVESTREAMING EVENTS.** We continue to connect to visitors, supporters, fans and the community via social media. Our livestreaming tours and programs on Facebook are driving traffic and enhancing interaction on our sites. Events this month, still viewable in the videos section of our Facebook page, include:
    - **July 6. LIVE at 12:05: Hammy 121st Birthday!** It is a busy week at the Isle of Wight County Museum. Join us for Hammy's birthday party sleepover on Friday, July 7, from 6 to 7 p.m. Bring your favorite stuffed animal to the museum for a sleepover with Hammy. Be sure to pick up your stuffed animal on Saturday during Hammy's Birthday Party between 1 and 3 p.m. and join us for cake and mocktails to celebrate.



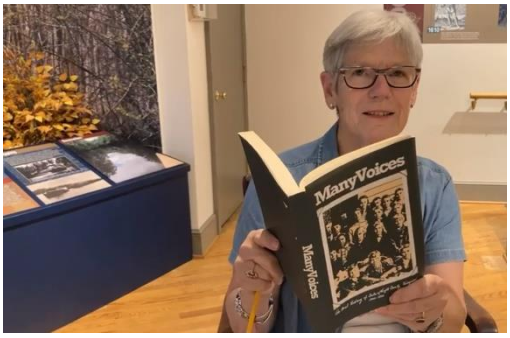
    - **July 11. LIVE at 12:05: Birthday Cards for the World's Oldest Ham.** Birthday cards were mailed and made for the World's Oldest Ham for his annual celebration. Adorable and fun in every way, these cards are highlighted in today's episode.



    - **July 13. LIVE at 12:05: Blackwater River Exhibit Updates.** The museum is excited to announce that the updates to the Blackwater River exhibit are completed and look great! The upper portion of the exhibit is newly added and completes the display beautifully. We hope you will visit to enjoy the many exhibit updates underway at the Isle of Wight County Museum.
    - **July 18. LIVE at 12:05: At the Movies.** In our collection is this Smithfield Theatre program from July 1942. Blockbusters playing in July included "Joan of Paris," "Lady for a Night," "To the Last Man" and "The Heart of the Rio Grande."



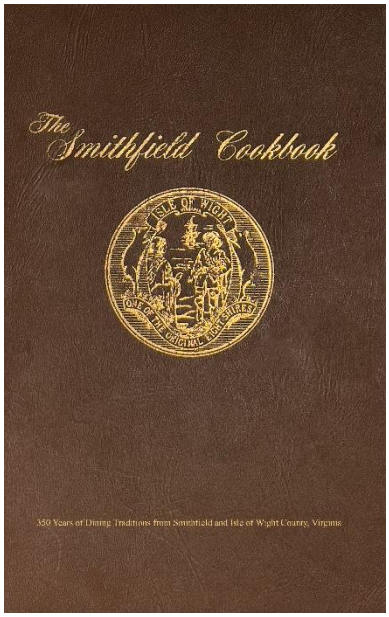
    - **July 20. LIVE at 12:05: Fossilized Bryozoa.** Bryozoa are described as an aquatic moss animal, a gastropod with moss forming on the outside. Join Curator Rachel Popp as she inspects several fossilized versions of this interesting creature. Found in the Benn's Church area of Isle of Wight County, these examples of Bryozoa date to the Ordovician Period which began 488.3 million years ago.
    - **July 25. LIVE at 12:05: 1920 Isle of Wight County Courthouse School.** Kathy Mountjoy shares a photograph in the museum's collection which highlights the 1920 Isle of Wight County Courthouse School.



- **BEHIND THESE WALLS**
  - People, objects and places all tell stories, and it is the history of a community that shows its unique character. This video series, launched in 2020, allows some of the county's most interesting structures to share their stories. The **Benjamin P. Chapman Memorial Library** in Smithfield aired on July 14. Currently in production is Smithfield Baptist Church. View all episodes in this series on our YouTube Channel, Facebook page or website: www.historicisleofwight.com/behind-these-walls.html.
- **CONNECTIONS**
  - This video series highlights the connections between the Isle of Wight County Museum and its historic sites with other community organizations and institutions. View all episodes in this series on the museum's YouTube Channel or Facebook page: www.youtube.com/@IsleOfWightCountyMuseum. Airing this month:
    - July 21. Isle of Wight County Schools, Isle of Wight County, Va.
    - July 27. Virginia Commonwealth University's Virtual Curation Laboratory, Richmond, Va.
- **GROUPS/TOURS/PROGRAMS**
  - July 6. Jamestown-Yorktown Foundation, James City County. Staff and interns. 4 guests.
  - July 7. Smithfield and Isle of Wight County Tourism tour with a group from New Kent County. 3 guests.
  - July 24. Main Street Baptist Preschool, Smithfield. 24 students.
- **GIFT SHOP**
  - Items added/restocked in the gift shop include t-shirts, pencil sharpeners, socks, loofahs, peanut coffee and 3-legged pigs.



- **EXHIBIT/PROJECT UPDATE**
  - **Historic Smithfield.** The sign across the street from the 1750 Courthouse is in production.
  - **Taste of Smithfield Cookbook**. The re-publication of this 1978 cookbook – in conjunction with the Isle of Wight County Museum Foundation – is underway. Delivery is expected in August.
  - **Sprigg Wing, Phase II: Crops, Trade & Merchants.** A new timeline as well as exhibits about colonial businesses, the tobacco industry and mills are in production.
  - **First Residents.** This exhibit space will be complete once our longleaf pine tree's branches are mounted.
  - **Civil War Trails.** New signage for Fort Huger and Fort Boykin is in production.
  - **Local Treasures**. Currently on display is the collection of **Robert Cox** which showcases artifacts recovered from one of Isle of Wight County's early courthouses, the **Mount Holly Courthouse**. Artifacts date to the 1600s and include coins, buttons, leather ornaments,



pottery and harmonica reeds. This exhibit concept displays the private collections of Isle of Wight County residents and/or those with a connection to the area. For more information and applications: www.historicisleofwight.com/local-treasures.html.

- **English Telephone Box**. The phone box in front of the Bank of Southside Virginia is part of the Isle of Wight County Museum's collection. Dishman Fabrications LLC of Yorktown is working to schedule the return of the door and glass. Once complete and exhibits are installed, a reception and/or ribbon-cutting will be organized.
- **Steamboats & Life on the Water; Unusual Objects.** Under development.
- **Online Exhibits Under Development**: Vietnam War Veterans in Isle of Wight County, Unsung Heroes of Isle of Wight County.
- **ISLE Be Home for Christmas.** This book project is collecting photographs, postcards, stories, mementos, songbooks, recipes and more that detail the holiday season in Isle of Wight County. This book will be published in November 2024. This date change will allow time to the layout of the publication.
- **Banners.** Banners on the museum's exterior were replaced.





- **ARTIFACTS**
  - Donations this month include photographs, prints and 1930s advertisements.
- **STAFF TRAINING AND REQUIREMENTS**
  - None.

Financials

• Gift Shop Sales (including tax):	$ 2,526.90
• Donations:	$ 125.00
• Admission:	$ 1,206.00
• Program/Lecture Fees:	$ 0.00
Total Monthly Deposit:	**$ 3,857.90**

Social Media/Online Presence

- Visit our website at www.historicisleofwight or www.hamcamva.com.
- **LIVE at 12:05.** Each Tuesday and Thursday, we host pop-up broadcasts on the museum's Facebook page. These programs were seen on the Ham Cam, but since COVID-19, programs and livestreaming from Facebook make these programs more mobile. Our segments – shot in the museum or at any of our historic sites - highlight events at the museum, announcements or artifacts from our collection. Tune in each Tuesday and Thursday at 12:05 p.m. on the museum's Facebook page to learn a bit about local history.
- **Facebook:** Isle of Wight County Museum: 3.4K likes and 4K followers. Daily posts.
- **Facebook:** World's Oldest Ham: 284/299 likes/followers. Semi-weekly posts.
- **Facebook:** Town of Smithfield. Periodic posts, responses and maintenance.
- **Twitter.** @WorldsOldestHam. The world's oldest ham has his own account. 1,397 followers.
- **Instagram.** @Isleofwightcountymuseum. 1,113 followers.
- **YouTube.** Isle of Wight County Museum. 69 subscribers.
- **Google Reviews.** 4.7/5 overall rating.
- **TripAdvisor.** 4.5/5 star overall rating.
- **Yelp.** 4.5/5 star overall rating.
- **Foursquare/Swarm.** 7.3/10 rating.

Media Coverage/Promotion/Advertising/Lobbying

- Various pieces in area publications including calendars and events.
- **July 7: WTKR News 3.** On air: 3 Things To Do - mention of the World's Oldest Ham's birthday celebration.
- **July 11: *Windsor Weekly***. Article and online: Life on the homefront during World War II - https://www.windsorweekly.com/2023/07/11/life-on-the-homefront-during-world-war-ii.
- **July 19: WTKR News 3.** On air, website, YouTube and social media: 'Ham, hospitality, and history:' Why Smithfield makes the perfect family Staycation - https://www.wtkr.com/news/ham-hospitality-and-history-why-smithfield-makes-the-perfect-family-staycation.
- **July 19: *Smithfield Times***. Article: 'World's Oldest Ham' turns 121.
- **July: Britalians TV**: Humans of the World. Season 4, Episode 2: Humans of Smithfield, Virginia - https://britalians.tv/btv-episodes/humans-of-the-world-s4e2-humans-of-smithfield-virginia/.



Outreach Lectures & Events







- **July 5. Isle of Wight County Parks and Recreation Summer Blast Camp**. Theme: World War II rationing, victory gardens and corn. Windsor Town Center, Windsor. 32 campers.
- **July 6. Isle of Wight County Parks and Recreation Summer Blast Camp**. Theme: World War II rationing, victory gardens and corn. Carrollton Elementary School, Carrollton. 85 campers.
- **July 10. Naturalization Ceremony**, Norfolk Federal Courthouse, Norfolk, Va. 80 new citizens.
- **July 13. Magnolia Manor**, Smithfield. Theme: Honey. 8 guests.
- **July 30. Christmas in July: Share Your Holiday Memories with the Isle of Wight County Museum.** The Isle of Wight County Museum is at work on *ISLE Be Home for Christmas*, a book about holiday memories in Isle of Wight County. This book of photographs and essays will showcase the collective memories of life in the county and is tentatively slated for publication this year. Bring your photographs and stories to Windsor Town Center so that museum staff can scan or photograph them for possible inclusion in this holiday keepsake. The event will be held at the Windsor Town Center, Windsor. 5 guests.

Windsor Castle 705 Cedar Street, Smithfield





- **July 25. Bookworm Discoveries at Windsor Castle Park.** Join the Blackwater Regional Library and Isle of Wight County Museum at Windsor Castle Park for outdoor-themed programming featuring themes of agriculture, nature and bugs! This fun and free opportunity to learn a little local history with STEAM themes while enjoying some fresh air and the chance to check out some books is perfect for bookworms of all ages. Today's theme: Cheese. 15 guests.

Fort Boykin 7410 Fort Boykin Trail, Isle of Wight County

- No updates.

Fort Huger 15080 Talcott Terrace, Isle of Wight County

- A replacement of the Captain John Smith Trail sign is in progress.

Nike-Carrollton Park 13036 Nike Park Road, Carrollton

- **Nike-Ajax Missile Restoration.** Isle of Wight County Public Utilities is at work on the site plan for the missile. A Geotech firm has been consulted to determine the scope of work for the borings and structural design.
- **Signage.** The replacement of four panels of interpretive signage regarding the former Nike-Ajax missile battery (N-75L) as well as Jones Creek (N-75C) are in production. Installation will take place in August.

Boykin's Tavern, 1820 Clerk's Office & Isle of Wight County Court House Complex 17146 Monument Circle, Isle of Wight County

- Boykin's Tavern Visitors: 5
- **July 15. Isle of Wight County Courthouse Complex Walking Tour.** Join us as we explore this 19th, 20th and 21st century site and share the story of its beginnings as well as a few tales of capers and duels. This tour begins and ends at Boykin's Tavern, 17146 Monument Circle. 18 guests.
- Interpretive spaces were cleaned on July 19.
- **Interpretive Plaques. Plaques for the** Isle of Wight County Courthouse, Clerk's Office and Courthouse Wall are in production.

Meetings

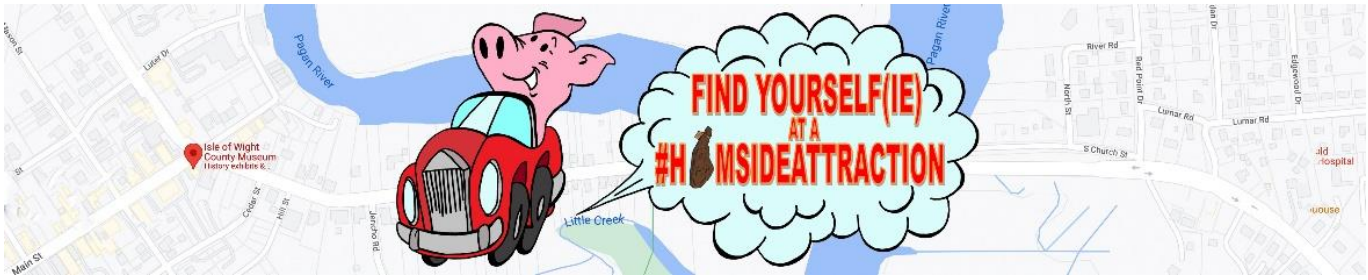
- July 10. Peninsula Museums Forum, Newport News.
- July 10. Smithfield Little Theatre, Smithfield.

Other Events & Notable Information

- **Volunteer Hours**: 184
- The museum was closed on Tuesday, July 4.

- **Ivy Hill Cemetery**. Meeting held on July 12 to coordinate marketing and fundraising.
- **July 17-31. Christmas Tree Stroll.** Smithfield and Isle of Wight County Tourism celebrated Christmas in July with this community participating event. Visitors were encouraged to vote for their favorite Christmas tree along Main Street for a chance to win a gift certificate.
- **Virginia American Revolution 250 Commission**
    - Subcommittee meetings on July 11 and July 18.
- **Virginia Tourism Corporation Small Business Marketing Leverage Grant.** This month, social media advertising wrapped up. The final report is in development. Visit our campaign landing page here: https://www.historicisleofwight.com/find-yourselfie-at-a-hamside-attraction.html.





Safety & Repairs

- **Isle of Wight County Public Works.** They rock. They have been instrumental this month in assisting us with several issues to include a lighting mystery in the country store and the movement of filing cabinets. The entire crew gets a huge shout-out from our department because filing cabinets are heavy and because the shipment/receiving of these cabinets has been – and continues to be – a debacle. All will be well with this project. In August. Provided that we all eat our Wheaties.
- **Power Outage**. On July 21-22, the museum experienced a power outage because of an individual(s) turning off the power to the museum. The Smithfield Police Department has pulled footage from our video cameras to investigate the crime.

Selections from Our Website and Social Media





July 19

Docent Dee Campbell visits pre-K students at Hardy Elementary School during the school year for educational outreach programming. Yesterday, she received a special thank-you delivery from students in Mrs. Wright's class and Mrs. Hansley's class.

Western Tidewater FREE CLINIC
Helping Hands. Health. Hope.

July 21, 2023

Mr. Randy Keaton, County Administrator
Isle of Wight County
PO Box 80
Isle Of Wight, VA 23397-0080

Dear Randy,

Your community needed your help and you answered.

Thank you for your donation of $19,592.25 on 7/21/2023 which will help provide health care to those in our community with no other place to turn for help.

Since 2007, Western Tidewater Free Clinic (WTFC) has been a place where patients can not only receive excellent medical and dental care, but also the confidence and quality of life to help them become flourishing citizens in the community.

Your donation will help to ensure that WTFC patients continue to have access to critical, life-saving care. Patients like Heather*, who stated, "The Free Clinic not only gives you physical care, it's mental care also because the people there care so much. From the littlest things to the biggest things, if I dial the Free Clinic – someone will help me."

We are continually inspired by the dedication and generosity of donors like you, Randy.

"Alone we can do so little, TOGETHER we can do so much." – Helen Keller

Sincerely,

Ashley

Ashley O. Greene
Executive Director

*Name are protected for privacy

Randy, thank you for the ongoing support from the County – you are changing your & our citizens' lives here at WTFC!

Western Tidewater Free Clinic, Inc. is a not-for-profit, tax-exempt 501(c)3 organization – donations to which are tax deductible to the fullest extent allowed by law on all solicitations. No goods or services were received in exchange for this contribution. Please keep this written acknowledgement of your donation for your personal records.

The Isle of Wight Arts League
319 Main Street
Smithfield VA 23430

757-357-7707
www.smithfieldarts.org
info@smithfieldarts.org

July 21, 2023

Randy Keaton
County Administrator
PO Box 80
Isle of Wight, VA 23397

The Board of Directors and members of the Isle of Wight Arts League (IWAL) would like to take this opportunity to express our appreciation for the work provided by your Senior Accountant, Ms. Nancy Mayo. Each year she navigates the Virginia Commission for the Arts (VCA) grant application process to secure matching funds for IWAL via a Creative Community Partnership program. Ms. Mayo is diligent in advising the League as to submission timelines and requirements to secure VCA funds.

It is through her effort's funds are available for our general operations. As a small nonprofit organization, it is a challenge to meet the financial demands of a "Brick and Mortar" facility. We thank her for assisting us in bringing artistic programs to the County. Together we build a stronger and more vibrant community through the Arts.

Respectfully,

Priscilla A. McGreevy

Priscilla A. McGreevy
President, Board of Directors
Isle of Wight Arts League

RECEIVED
JUL 24 2023
BY: AB



7/19/2023

Isle of Wight County
P O Box 80
Isle of Wight, VA 23397

Dear Isle of Wight County,

Many domestic violence victims and their children come to our shelter with nothing but the clothing they are wearing. It is up to us to provide them with life's basic necessities, including the products you have donated today. It's a physical help to them but it also expedites their emotional recovery. Only once the necessities are covered can victims focus on dealing with the trauma they have endured. This is the difference you have made! Those you have touched with your kindness are now on their way to a full recovery and a happier, healthier life!

We cannot thank you enough for your generous donation of $20,000.00 that you made on 7/13/2023. Starting over can be a dauntingly painful experience, especially when you're completely empty-handed. Please know your generosity has made someone's life a little easier.

On behalf of all of those that The Genieve Shelter serves, we thank you! We hope that we can count on your support in the future as well. Our goal is to end the cycle of violence afflicting our community. With the continuing support of people like you, we will succeed.

Sincerely,

Marleisa Montgomery, MPH, MSW,
Executive Director

ISSUE:

Application of Carver Solar I, LLC (CUP-6-22), Applicant, and Carter R. Clements, Joyce G. Clements, Travis W. Williams, Lewis Clarence Lee Trust (Clarence Lee Lewis, Trustee), Joshua Pretlow, Jr., Garrison Farm Solar LLC, Delman Lew Carr Trust (Delman Lew Carr, Trustee), Chester G. Carr Trust (Glenn and Susan S. Carr, Trustees), Helene Johnson Hobbs, Joest Properties, LLC, Scott L. Thomason, Carla A. Thomason, James K. Edwards, Marsha F. Edwards, Cobb Land Limited Partnership, Troy L. Robinson, and Margaret F. Robinson, Property Owners, for a Conditional Use Permit to Establish a Major Utility Service, Specifically a 71 MW Utility-Scale Solar Energy Facility and Substation, on 637 Acres Located on Yellow Hammer Road (Rte. 645), Windsor Boulevard (Rte.460), Winston Drive (Rte. 639), Cut Thru Road (Rte. 638), Ecella Road (Rte. 639), Barrett Town Road (Rte. 641), Mill Creek Drive (Rte. 638), and Antioch Road (Rte. 657) in the Rural Agricultural Conservation, Conditional General Commercial, and Conditional Rural Residential Zoning Districts

BACKGROUND:

The Board of Supervisors last considered this application at their February 23, 2023, regular meeting. Supervisor Jefferson made a motion to approve the request with the recommended conditions. The motion failed by a vote of three against the motion and two voting in favor of the motion.

Subsequently at their August 4, 2023, regular meeting, Supervisor Jefferson made a motion to rescind action of the Board's February 23, 2023 vote. The motion was adopted (4-0) with Supervisors Acree, Grice, Jefferson and Rosie voting in favor of the motion; no Supervisors voting against the motion; and, Chairman McCarty absent from the meeting.

In advance of the August 17, 2023, Board meeting, the applicant has proposed several amendments to the conditions originally considered by the Board at their February 2023 meeting for the Board's consideration. A redline copy of the proposed changes is attached to the staff report.

The proposed project is located on twenty properties approximately 3/4 mile from the Town of Windsor jurisdictional boundary at its closest point. The project will have frontage on eight different roads listed in the application description. It is adjacent to agricultural and forestal lands, a few single-family residences, and the Antioch Church and cemetery. The project lies both to the north and south of

Windsor Boulevard (Rte. 460) and lies directly to the north of the previously approved Windsor PV1 solar energy facility. The project lies almost entirely within one mile of the existing 115 kv Myrtle-Windsor powerline located to the south of and parallel to Route 460. A property location map is attached to this staff report.

The properties on which the proposed project is located are currently in agricultural, silvicultural, and residential uses. The majority of properties are zoned Rural Agricultural Conservation (RAC) with the exception of two which include tax map number 45-01-061B which is zoned conditional-General Commercial (C-GC) and 52-01-039 which is zoned conditional-Rural Residential (C-RR). The Board of Supervisors changed the zoning for tax map number 45-01-061 to C-GC in 1998 to allow a number of commercial uses such as building material, garden supply, and equipment sales and service, welding shops, dry cleaning plants, and other low-volume traffic businesses. The conditional zoning was amended in 2009 to allow the outdoor display of storage sheds and other goods. The only portion of the proposed solar project to be located on this property is an underground conduit measuring one to two inches in diameter buried three feet underground.

The Board of Supervisors changed the zoning for a 4.09 acre portion of tax map number 52-01-039 to C-RR in 2011 for a single family residential lot. The lot has not yet been subdivided from the parent tract. No portion of the solar energy generation facility is proposed for this portion of the property.

A full analysis of the proposed project's consistency with the County's Plans and Ordinances is included in the attached Planning Commission staff report.

At their regular meeting on January 18, 2023, the Board voted to continue their consideration of the proposed project to allow the applicant and staff to provide additional information on such items as whether the property could be used for farming again in the future, the potential for contamination from solar panels and equipment, potential for negative effects from electric and magnetic fields (EMF), the impact of solar facilities on nearby property values, and how stormwater regulations will impact the project. Since that time, the applicant has provided a report with additional information on EMF, property value impacts, contamination potential, future agriculture potential and stormwater management. The applicant also proposes an additional condition of approval that requires soil remediation as needed for the resumption of agricultural productivity. The report is attached for your information.

Per the Board's request for additional farmland reclamation information, staff has also attached a memo and Powerpoint presentation from Professor Lee Daniels of Virginia Tech in regard to this issue.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

The Planning Commission recommended approval of the application by a vote of six in favor and two against the motion with the recommended conditions:

1. The portion of the subject property supporting solar panels shall be enclosed by security fencing of a type that is harmonious with the rural, agricultural, and historical character of the County while meeting federal and state regulations for solar electric generating facility fencing as determined by the Zoning Administrator adjacent to all public rights-of-way, residential property, properties eligible for listing on the National Register of Historic Places, and civic uses prior to final site plan approval.
2. Fencing shall be placed around the solar arrays, inverters, and substation only and not the whole site in order to provide wildlife corridors.
3. In order to minimize the visual impacts to historic, civic and residential properties, staff recommends that all solar arrays, inverters, substations and other associated structures be subject to a minimum 200 foot setback from these structures if part of the project and 200 feet from the property line of these properties if outside the project.
4. The enhanced landscape buffer plan proposed on the concept plan exhibit is conceptual only at this time. The landscape buffer design and required plantings will be reviewed in detail for approval during site plan review and, at minimum, must include a triple row of staggered evergreen and deciduous species meeting the minimum specifications of the landscaping ordinance and of varying heights at maturity where existing vegetation is not being retained. Trees shall be planted no more than ten (10) feet on center.
5. The applicant shall permanently preserve and maintain existing and newly installed buffer landscaping and shall not clear or cut live trees within required setbacks or buffer zones except as necessary to avoid shading of solar panels as approved by the Zoning Administrator.
6. Excluding the bufferyards described above, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a vegetative cover. This vegetative cover will be managed with

mowing and/or grazing.
7. The applicant shall meet any additional delineation and buffer requirements specified by the Virginia Department of Historic Resources prior to receiving final site plan approval.
8. The applicant shall submit an Emergency Response Plan at the time of site development plan application for review and approval by the County, which shall detail fire suppression methods that will be immediately deployed during both construction and operation of the facility. The plan shall include a training program to be provided to emergency responders about safety for on-site incident response. Initiation and frequency of training will be coordinated between the Department of Emergency Services and the facility operator. The applicant shall install a Knox Box or other remote access technology at the facility to ensure emergency responders have access to the facility should the need arise.
9. Hours of operation for construction activities to be limited to 7:00 am to 6:00 pm Monday through Friday and 7:00 am to 5:00 pm on Saturdays. No construction is to occur on Sundays.
10. Topsoil will be conserved on site.
11. The applicant shall reimburse the County for reasonable costs related to retaining such third-party inspectors as deemed necessary for project inspections.
12. Prior to site plan approval, the Applicant shall either adjust the site plan to avoid areas that were determined potentially eligible for the National Register of Historic Places as part of the Phase 1 Archaeological Survey or shall undergo the appropriate Phase 2 close-interval testing to determine if any material is eligible for listing.
13. As part of the site plan review, the Applicant shall provide documentation that the selected panels and all power generating equipment onsite are "Tier 1" modules as established by the most recent "PV Module Tier 1 List" issued by Bloomberg NEF or a similar third-party analysis widely accepted in the solar industry. Additionally, the make and model of the selected panels and all power generating equipment initially installed and replaced on the site must qualify, for disposal purposes, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP).
14. There shall be a sign posted with the contact information for the local project liaison.
15. No salvage value be added to the decommissioning surety bond.
16. If the land area being leased was under crop cultivation prior to lease, it shall be maintained and cut annually during the growing season prior to August 1 until site construction begins.
17. The inverters shall be set back a minimum of 500 feet from all property lines.
18. The applicant shall make commercial best efforts to source US-made panels and other materials.

19. The applicant shall provide pollinator meadows.

Staff also recommends approval of the application with the recommended conditions.

ATTACHMENTS:

Description	Type	Upload Date
Revised Conditions	Backup Material	8/15/2023
Planning Commission staff report	Backup Material	1/9/2023
Location Map	Backup Material	11/16/2022
Future Land Use Map	Backup Material	11/16/2022
Zoning District Map	Backup Material	11/16/2022
April 2022 Application	Backup Material	11/15/2022
Carver Solar Parcel Map and List	Backup Material	11/16/2022
Project Narrative	Backup Material	11/15/2022
Concept Plan Sheet 3.0	Backup Material	11/15/2022
Proposed Construction Traffic Plan	Backup Material	11/15/2022
Environmental Impact Assessment	Backup Material	11/15/2022
Corps Confirmation	Backup Material	11/15/2022
Phase I Archeological Report	Backup Material	11/15/2022
Phase I Architectural Report	Backup Material	11/15/2022
VDHR Review Comments	Backup Material	11/15/2022
Economic Impact Report	Backup Material	11/15/2022
Approved Solar Facility Table	Backup Material	11/15/2022
Visual Impact Analysis	Backup Material	11/16/2022
BOS Ordinance	Ordinance	2/16/2023
Carver Solar Followup Report 2/3/23	Backup Material	2/16/2023
VA Tech Farmland Soil Impact Memo July 2022	Backup Material	2/16/2023
VA Tech Soil Compaction Powerpoint	Backup Material	2/16/2023

Carver Conditions 1.18.23 + 5.30.23 RL + Jul 2023 RL + 8.7.23 RL + 8.10.23 RL incorporating the 2.23.23 proposed additional conditions + 8.11.23 RL

1. The portion of the subject property supporting solar panels shall be enclosed by security fencing of a type that is harmonious with the rural, agricultural, and historical character of the County while meeting federal and state regulations for solar electric generating facility fencing as determined by the Zoning Administrator adjacent to all public rights-of-way, residential property, properties eligible for listing on the National Register of Historic Places, and civic uses prior to final site plan approval.
2. Fencing shall be placed around the solar arrays, inverters, and substation only and not the whole site in order to provide wildlife corridors.
3. In order to minimize the visual impacts to historic, civic and residential properties, ~~staff recommends that~~ all solar arrays, inverters, substations and other associated structures are~~be~~ subject to a minimum 200 foot setback from these structures if part of the project and 200 feet from the property line of these properties if outside the project, except as provided in Conditions 18, 19 and 20.
4. Except as provided herein, ~~T~~the enhanced landscape buffer plan proposed on the concept plan exhibit is conceptual only at this time. The landscape buffer design and required plantings will be reviewed in detail for approval during site plan review and, at minimum, must include a triple row of staggered evergreen and deciduous species meeting the minimum specifications of the landscaping ordinance and of varying heights at maturity where existing vegetation is not being retained. Trees shall be planted no more than ten (10) feet on center. On Parcel ID No. 45-01-059 at the corner of Yellow Hammer Road and Deerfield Drive, applicant shall establish 1,200 linear feet of six (6) rows of plantings which is shown in the concept plan as "Double Enhanced Vegetation." This buffer location and orientation will be reviewed in detail at site plan review but the design and location as stated herein is binding upon the applicant and will only be modified at the direction of the Director of Community Development. Along the boundary of Parcel ID No. 53-01-022 that abuts Parcel ID Nos. 53-01-023 and 53-01-024, applicant shall establish 600 linear feet of six (6) rows of plantings which is shown in the concept plan as "Double Enhanced Vegetation." This buffer location and orientation will be reviewed in detail at site plan review but the design and location as stated herein is binding upon the applicant and will only be modified at the direction of the Director of Community Development.
5. The applicant shall permanently preserve and maintain existing and newly installed buffer landscaping and shall not clear or cut live trees within required setbacks or buffer zones except as necessary to avoid shading of solar panels as approved by the Zoning Administrator.
6. Excluding the bufferyards described above, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a vegetative cover. This vegetative cover will be managed with mowing and/or grazing.
7. The applicant shall meet any additional delineation and buffer requirements specified by the Virginia Department of Historic Resources prior to receiving final site plan approval.
8. The applicant shall submit an Emergency Response Plan at the time of site development plan application for review and approval by the County, which shall detail fire suppression methods that will be immediately deployed during both construction and operation of the facility. The plan shall include a training program to be provided to emergency responders about safety for on-site incident response. Initiation and frequency of training will be coordinated between the Department of Emergency Services and the facility operator. The applicant shall install a Knox

Box or other remote access technology at the facility to ensure emergency responders have access to the facility should the need arise.
9. Hours of operation for construction activities to be limited to 7:00 am to 6:00 pm Monday through Friday and 7:00 am to 5:00 pm on Saturdays. No construction is to occur on Sundays.
10. Topsoil will be conserved on site.
11. The applicant shall reimburse the County for reasonable costs related to retaining such third-party inspectors as deemed necessary for project inspections.
12. Prior to site plan approval, the Applicant shall either adjust the site plan to avoid areas that were determined potentially eligible for the National Register of Historic Places as part of the Phase 1 Archaeological Survey or shall undergo the appropriate Phase 2 close-interval testing to determine if any material is eligible for listing.
13. As part of the site plan review, the Applicant shall provide documentation that the selected panels and all power generating equipment onsite are "Tier 1" modules as established by the most recent "PV Module Tier 1 List" issued by Bloomberg NEF or a similar third-party analysis widely accepted in the solar industry. Additionally, the make and model of the selected panels and all power generating equipment initially installed and replaced on the site must qualify, for disposal purposes, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP).
14. There shall be a sign posted with the contact information for the local project liaison.
15. No salvage value be added to the decommissioning surety bond.
16. If the land area being leased was under crop cultivation prior to lease, it shall be maintained and cut annually during the growing season prior to August 1 until site construction begins.
17. The inverters shall be set back a minimum of 500 feet from all property lines.
18. The substation shall be set back a minimum of 125 feet from all property lines external to the project and shall be set back 250 feet from any non-participating residential structures.
19. The setback from all solar arrays and other associated structures from Parcel ID No. 53-01-024 which contains a cemetery, shall be 100 feet.
20. The project fence shall be set back at least 340 feet from the northernmost corner of Parcel ID No. 45-01-059 at the intersection of Deerfield Drive and Yellow Hammer Road as depicted in the concept plan.
21~~18~~. The applicant shall make commercial best efforts to source US-made panels and other materials.
22~~19~~. The applicant shall provide pollinator meadows.
23. The maximum area of prime soils and soils of statewide importance used for solar facilities has yet to be met as of the date of approval of this CUP. Pursuant to the approval of this CUP, this Project is deemed to have satisfied Article V, Section M(4)(k) of the Isle of Wight Zoning Ordinance.
2~~3~~4. A sealed dry-waste container shall be maintained at the facility for the disposal of any damaged solar panels throughout the life of the facility.
25. The applicant shall implement a program for the collection of baseline data establishing pre-construction soil conditions for the production of row crops for the agricultural areas within the project area. The program shall establish the relevant characteristics of the topsoil. The baseline data shall be derived from field and laboratory testing of soil conditions, including depth, density and quality from representative locations. Laboratory testing shall be conducted by an accredited laboratory. Parameters for assessing soil quality may include the following: infiltration rate, bulk density, water holding capacity, pH, percent organic matter, cation exchange capacity,

Phosphorous/Phosphate (P), Nitrogen (N), and Potassium/Potash (K). After 30 years of operation and again after 35 years of operation, soil conditions shall be determined for the same sampling locations using the same parameters and the results used to plan soil restoration activities. After equipment is removed as part of decommissioning, soil conditions shall be determined for the same sampling locations using the same parameters. Soil restoration activities shall be performed as necessary during operations or decommissioning to return soil conditions to at least baseline conditions. The County will be provided with data of soil conditions within 30 days after the receipt of results.

26. At least once per month during operations, litter that may have accumulated between the fence and the right-of-way of Highway 460 shall be collected and disposed of.

27. The use of all pesticides, herbicides and insecticides shall be prohibited, except those that are approved for commercial applications may be used pursuant to an approved herbicide and/or insecticide management plan prepared by a licensed professional that is submitted to, and approved by, the Zoning Administrator.

PLANNING REPORT

APPLICATION:

Application of Carver Solar I, LLC (CUP-6-22), applicant, and Carter R. Clements, Joyce G. Clements, Travis W. Williams, Lewis Clarence Lee Trust (Clarence Lee Lewis, Trustee), Joshua Pretlow, Jr., Garrison Farm Solar LLC, Delman Lew Carr Trust (Delman Lew Carr, Trustee), Chester G. Carr Trust (Glenn and Susan S. Carr, Trustees), Helene Johnson Hobbs, Joest Properties, LLC, Scott L. Thomason, Carla A. Thomason, James K. Edwards, Marsha F. Edwards, Cobb Land Limited Partnership, Troy L. Robinson, and Margaret F. Robinson, property owners, for a conditional use permit to establish a major utility service, specifically a 71 MW utility-scale solar energy facility and substation, on 637 acres located on Yellow Hammer Road (Rte. 645), Windsor Boulevard (Rte.460), Winston Drive (Rte. 639), Cut Thru Road (Rte. 638), Ecella Road (Rte. 639), Barrett Town Road (Rte. 641), Mill Creek Drive (Rte. 638), and Antioch Road (Rte. 657) with tax parcel numbers 52-01-028, 52-01-034, 52-01-035, 52-01-036, 45-01-059, 45-01-059A, 45-01-061,45-01-061B, 45-01-061C, 45-01-065, 45-01-068, 52-01-037, 52-01-039, 53-01-001, 53-01-003, 53-01-003M, 53-01-006, 53-01-022, 53-01-022E, and 46-01-019A in the Rural Agricultural Conservation, Conditional General Commercial, and Conditional Rural Residential zoning districts. The current uses of the properties are agricultural and silvicultural uses.

ELECTION DISTRICT:

Districts 4 and 5

LOCATION:

The proposed project is located on twenty properties approximately 3/4 mile from the Town of Windsor jurisdictional boundary at its closest point. The project will have frontage on eight different roads listed in the application description. It is adjacent to agricultural and forestal lands, a few single-family residences, and the Antioch Church and cemetery. The project lies both to the north and south of Windsor Boulevard (Rte. 460) and lies directly to the north of the previously approved Windsor PV1 solar energy facility. The project lies almost entirely within one mile of the existing 115 kv Myrtle-Windsor powerline located to the south of and parallel to Route 460. A property location map is attached to this staff report.

BACKGROUND:

The properties on which the proposed project is located are currently in agricultural, silvicultural, and residential uses. The majority of properties are zoned Rural Agricultural Conservation (RAC) with the exception of two which include tax map number 45-01-061B which is zoned conditional-General Commercial (C-GC) and 52-01-039 which is zoned conditional-Rural Residential (C-RR). The Board of Supervisors changed the zoning for tax map number 45-01-061 to C-GC in 1998 to allow a number of commercial uses such as building material, garden supply, and equipment sales and service, welding shops, dry cleaning plants, and other low-volume traffic businesses. The conditional zoning was amended in 2009 to allow the outdoor display of storage sheds and other goods. The only portion of the proposed solar project to be located on this property is an underground conduit measuring one to two inches in diameter buried three feet underground.

The Board of Supervisors changed the zoning for a 4.09 acre portion of tax map number 52-01-039 to C-RR in 2011 for a single family residential lot. The lot has not yet been subdivided from the parent tract. No portion of the solar energy generation facility is proposed for this portion of the property.

DESCRIPTION:

The applicant has proposed a 71 MW solar energy generation facility on a total of 637 acres that spans across twenty different parcels. Any acreage of the properties not within the project area will remain in their current uses. The project will consist of solar panels along with their racking systems and metal posts, inverters, collection lines, a substation, fencing, underground conduits lines, and access roads that will connect different

sections of the projects. No new upgrades are proposed to the existing transmission lines or substation. A project narrative provided by the applicant is attached to this staff report.

Public Facility Impacts:

The impacts of the proposed facility on public roads will occur primarily during construction and will be minimal once established. In establishing the use, the enjoyment of neighboring properties may also be temporarily impacted by construction traffic and noise generation. The applicant has provided a proposed construction traffic route which has been reviewed and approved by the Virginia Department of Transportation. The plan is attached to this staff report. The applicant states that most of the deliveries will be coming from the east along Route 460 in order to take advantage of the ports.

In order to ensure adequate provision of emergency services, staff recommends the applicant submit an Emergency Response Plan at the time of site development plan application for review and approval by the County, which shall detail fire suppression methods that will be immediately deployed during both construction and operation of the facility. The plan shall include a training program to be provided to emergency responders about safety for on-site incident response. Initiation and frequency of training will be coordinated between the Department of Emergency Services and the facility operator. The applicant shall install a Knox Box at the facility to ensure emergency responders have access to the facility should the need arise and include plans for the same on the project site plan.

Environmental Assessment:

The project lies within the Blackwater River watershed area and has several wetland areas within it which have been confirmed by the US Army Corps of Engineers. In addition, a portion of the property lies within the Antioch Swamp Stream Conservation Unit (SCU). The Department of Conservation and Recreation's Division of Natural Heritage ranks this SCU as a site with very high significance and includes species of concern. The SCU is shown on the concept plan map sheet C3.0 and generally follows the floodplain boundary.

Little to no impacts are proposed to wetlands, streams or floodplain except for several access road crossings. The concept plan shows the stream corridors remaining open which may serve as wildlife corridors. To help ensure these opportunities, fencing could be placed around the facilities only and not the whole site.

Environmental reports provided by the applicant and state agency responses are attached to the staff report.

Historic Resources Assessment:

Phase I archaeological and architectural studies were conducted for the project area and are included in the attachments to this report. The Phase I archeological study resulted in the identification of fourteen archeological sites identified within the project area. Three of these sites are considered eligible for listing in the National Register for Historic Places (NRHP) and are within the proposed development area for the project. When asked for information about any proposed impacts to these resources, the applicant stated that they plan to excavate and donate artifacts during the Permit by Rule (PBR) process with the Virginia Department of Historic Resources (VDHR) and Department of Environmental Quality (DEQ). The PBR will not be issued until the project elects to either avoid the areas or conduct the excavation of artifacts.

The Phase I Architectural Study resulted in the identification of 82 architectural resources greater than 50 years of age (constructed in 1972 or earlier) located within the survey area. Of the surveyed resources, 54 were previously recorded and 28 were newly recorded during this Phase I Survey. Of the previously recorded resources, 29 were evaluated and determined not eligible for listing in the NRHP in 2020 and were therefore not subject to resurvey or evaluation as part of this effort. An additional two of the previously recorded resources were revealed to have been demolished. The resources surveyed as part of this effort primarily include domestic and agricultural buildings from the mid-nineteenth to late-twentieth century, as well as a nineteenth century family cemetery, a railroad corridor, and several twentieth century commercial buildings. A total of four resources identified within the survey area are considered eligible or potentially eligible for listing in the NRHP including two homes, a

commercial building, and a railroad corridor. Of the two homes, the farm at 23255 Barrett Town Road (VDHR# 046-5089) has previously been determined potentially eligible as a good example of a mid-nineteenth century plantation home in the area with a relatively intact property and several potentially nineteenth century outbuildings. The second home, a farm located at 7431 Deerfield Drive (VDHR# 046-5671) is believed to have been built circa 1894, but replaced an eighteenth-century dwelling, and retains several nineteenth century outbuildings as well as family cemetery. The commercial building is the 1930s roadside "Hobb's Store" (VDHR# 046-5101) that has been determined eligible for its association to the development of U.S. 460 and a unique example of a service station with a complex of motor lodge cabins. The Norfolk and Western Railroad (VDHR# 091-5098) has also been determined potentially eligible for its association to the growth and development of commerce in the region from the nineteenth century through the present-day.

Out of the four eligible architectural resources within the project study area, two can be considered impacted by the project. The first is Hobbs Store adjacent to Route 460 and the other is 23255 Barrett Town Road.

VDHR has stated that in order to minimize impacts to both resources, the sites should be subject to their review and approval of an appropriate landscaping and screening plan. Staff has reached out to VDHR staff to determine whether this has been done yet. The applicant's consultant recognized that the impacts to the Barrett Town property will be more substantial, because its associated property, field/woodland patterns, and landscape are contributing to its character as a farm.

In order to minimize the visual impacts to both historic properties in the project area, staff recommends that all solar arrays, inverters, substations and all other associated structures should be subject to a minimum 200 foot setback from these structures in addition to an enhanced landscaping buffer. For comparison purposes, the setback from the Jones House as part of the Cavalier Solar CUP application was over 1,200 feet while the setback from the Delk Farm on Mill Swamp Road was over 900 feet, both of which left existing vegetation intact as well. Southampton County requires a setback of 500 feet for new connector or substations, and inverters and transformers are to be setback 250 feet from any existing dwellings, schools, places of worship, state scenic rivers and rights of way. Surry County is currently considering a policy to require that no part of a facility site be located within 0.5 miles of historic sites or other existing community scale or utility scale solar energy facilities. In addition, no part of the facility may be within 750 feet of the property lines for any place of worship or cemetery.

Economic Impact Assessment:

According to the applicant's economic impact report, the project will include 596 acres with improvements to support the solar energy facility and support two permanent, full-time jobs for grounds maintenance. The report states about half of the site is timberland and the other half is used for the agricultural production of corn, soybeans, cotton, and peanuts. The current assessment value of the affected acreage is approximately $773,325.30. Based on the assessed value, the property generates about $6,573 in real estate tax revenue per year, or $262,931 over forty years. Independent of a siting agreement, the solar facility would be reassessed at $15,000 an acre and generate $75,990 in real estate taxes annually, or $3,093,652 over forty years. In addition, the County would derive revenue from machinery and tools tax on the capital facilities at $3,049,427 over forty years. In total, the facility would generate over $6 million in additional tax revenue over forty years.

Using the IMPLAN model to assess direct and indirect impact of the current agricultural activity, the report states that the current use generates 3 jobs, $58,400 in labor income, and $236,600 in economic output. This is in addition to $6,573 in real estate taxes per year. Agricultural operations are exempt from machinery and tools tax.

In contrast, the on-going operation of a solar facility on the same property would generate two jobs, $68,900 in labor income, and $210,600 in economic output per year. This is in addition to $75,990 in real estate taxes per year in addition to an average of $76,236 in machinery and tools tax revenue.

Currently, agriculture and silviculture are two of the County's top industries. The Carver Solar Facility would be the seventh solar energy generation facility in the County and represents a subtraction of approximately 0.8 percent of the County's cultivated land (USDA-NASS, 2017). While this project represents almost 1% of the

collective 3% of cultivated land encompassed by all seven solar energy projects, longer-term cumulative land conversions could create adverse effects on the local agricultural industry. A table showing the previously approved and proposed solar energy facilities is attached to this report.

Viewshed Analysis:

The applicant provided several viewshed renderings comparing how the existing site looks currently to what it would look immediately after the landscaping buffers are planted and again at the time of maturity. The viewshed analysis includes perspectives from Yellow Hammer Road, Winston Drive, Rte. 460, Cut Thru Road, Barrett Town and Antioch Road. The analysis is included as an attachment to the staff report.

The viewshed analysis illustrates views from each of these right-of-way locations as well as from the historic home at 23255 Barrett Town Road utilizing the proposed setbacks for the solar facility. The applicant proposes a setback of 200 feet from Rte. 460, 125 feet from residential properties, and 75 feet from agricultural properties and other roads in the project area. Although the applicant shows a double-stacked buffer of small and medium evergreen trees, the landscaping plan will be required to meet the ordinance requirements of a mix of large and small deciduous and evergreen trees and shrubs in addition to any conditions of approval.

In order to minimize the visual impacts to historic, civic and residential properties, staff recommends that all solar arrays, inverters, substations and all other associated structures should be subject to a minimum 200 foot setback from these structures in addition to an enhanced landscaping buffer of triple-stacked evergreen and deciduous species meeting the minimum specifications of the landscaping ordinance and of varying heights at maturity, with trees to be planted to no more than 10 feet on center. In addition, staff recommends fencing along the right of way and adjacent to residential, historic, and civic properties be an agricultural style fence as approved by the Zoning Administrator at site plan approval.

COMPREHENSIVE LAND USE PLAN:

The future recommended land use designation for these properties is Rural Agricultural Conservation (RAC) and Resource Conservation (RC) under the adopted Comprehensive Plan. Appropriate uses for the RAC land use designation include agriculture, horticulture, forest lands, and scattered low-density residential uses. Other uses such as resource extraction and utility-scale solar facilities are also permitted when appropriately sited. Appropriate uses for the RC land use designation include wetlands, farms, forest uses, open space, and limited park facilities.

Solar energy facilities are considered compatible with the RAC land use when properly sited and with the application of appropriate development criteria. The areas designated as RC should be preserved due to environmental constraints unless site-specific analysis demonstrates there are no environmental concerns in a specific area. The proposed use will be required to use screening landscaping and appropriate fencing to minimize its visual impacts on the surrounding area.

ORDINANCE REVIEW:

The zoning district classification for all but two of the subject properties is RAC. The RAC zoning district is intended to preserve and protect areas of the County that are predominantly in agricultural and forestal use and to maintain the existing land base to support those activities. One property is zoned C-GC and another has a split zoning designation of RAC and C-RR. No portion of the proposed solar facility is to be located on the RR zoning portion of parcel 52-01-039. An underground cable conduit is to be constructed through the property zoned C-GC with no above-ground structures.

The applicant proposes to establish a 71 MW solar energy facility, which is classified as a major utility service use type in the Zoning Ordinance. These facilities are permitted as conditional uses in the RAC, RR, and GC zoning districts and may be considered compatible with appropriate conditions to mitigate any potential negative impacts on the surrounding community.

Several of the parcels are located in the Highway Corridor Overlay District which includes those areas which lie within 500 feet of either side of the County's major arterial roads, including Route 460. The applicant is proposing a minimum setback of 200 feet from Route 460 for the solar facility to help mitigate any visual impacts from the right-of-way.

Section 1-1017 of the Zoning Ordinance provides standards for review of a conditional use application that the Planning Commission and Board of Supervisors shall consider before granting a conditional use permit. They are as follows:

1. That the establishment, maintenance, and operation of the conditional use will not be detrimental to or endanger the public health, safety, and general welfare;
2. That the conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially impair the use of other property within the immediate proximity;
3. That adequate utilities, water, sewer or septic system, access roads, storm drainage and/or other necessary public facilities and improvements have been or will be provided;
4. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion on the public streets;
5. That the proposed conditional use is not contrary to the goals and objectives of the Isle of Wight County Comprehensive Plan;
6. That the conditional use shall, in all other respects, conform to the applicable regulations of the zoning district classification in which it is located and to the special requirements established for the specific use; and,
7. That the use(s) at the location proposed will not result in a multiplicity or saturation of similar uses in the same general neighborhood of the proposed use.

In addition to the standards and other guidelines described in the Zoning Ordinance, the Board may impose conditions or limitations on any approval, including the posting of performance guarantees. Such conditions may include, but are not necessarily limited to:

1. The number of persons living or working in the immediate area and the proposed hours of operation, as may applicable;
2. Traffic conditions, including facilities for pedestrians, such as sidewalks and parking facilities; the access of vehicles to roads; peak periods of traffic; and proposed roads, but only if construction of such roads will commence within the reasonably foreseeable future;
3. The orderly growth of the neighborhood and community and the fiscal impact on the County;
4. The effect of odors, dust, gas, smoke, fumes, vibration, glare, and noise upon the use of surrounding properties;
5. Facilities for police, fire protection, sewerage, water, trash and garbage collection and disposal, and the ability of the County or persons to supply such services;
6. The degree to which the development is consistent with generally accepted engineering and planning principles and practices;
7. The structures in the vicinity such as schools, houses of worship, theaters, hospitals, and similar places of public use;
8. The purposes set forth in this ordinance, the County's Comprehensive Plan, and related studies for land use, roads, parks, schools, sewers, water, population, recreation, and the like;
9. The environmental impact, the effect on sensitive natural features, and opportunities for recreation and open space; and,
10. The preservation of cultural and historic resources of landmarks.

Following approval of the CUP, the applicant will be required to submit a site plan for review and approval in accordance with Zoning Ordinance requirements and conditions of approval.

AGENCY REVIEW:

The application was forwarded to the following departments for their review:

- Economic Development: No concerns.
- Emergency Services: The recommended condition for submission of a fire response plan and annual training addresses concerns.
- Utility Services: Site plan will have to meet stormwater requirements.
- Isle of Wight County Museum: No concerns with the application, provided that the conclusions and recommendations outlined in the Phase 1 reports are followed.
- Virginia Department of Historic Resources (VDHR): Please see attached review comment letter.
- Virginia Department of Transportation (VDOT): No concerns.

Please note that, should the conditional use permit be approved, the project will be subject to site plan review and approval from all necessary agencies.

STAFF CONCLUSIONS:

Strengths:

1. The application is generally consistent with the Comprehensive Plan and can meet all ordinance requirements.
2. The proposed use will have minimal impact on community facilities and resources with the conditions presented.
3. Enhanced setbacks from Route 460 have been proposed by the applicant.

Weaknesses:

1. The proposed use would remove agricultural land from production.
2. Temporary impact to residential development in the area from construction traffic and noise is expected during the construction phase.
3. The project will create visual impacts to historical properties and the highway corridor overlay district which can be substantially mitigated with the attached conditions.

STAFF RECOMMENDATION:

Staff recommends approval of the CUP with the following conditions: 1. The portion of the subject property supporting solar panels shall be enclosed by security fencing of a type that is harmonious with the rural, agricultural, and historical character of the County while meeting federal and state regulations for solar electric generating facility fencing as determined by the Zoning Administrator adjacent to all public rights-of-way, residential property, properties eligible for listing on the National Register of Historic Places, and civic uses prior to final site plan approval. 2. Fencing shall be placed around the solar arrays, inverters, and substation only and not the whole site in order to provide wildlife corridors. 3. In order to minimize the visual impacts to historic, civic and residential properties, staff recommends that all solar arrays, inverters, substations and other associated structures be subject to a minimum 200 foot setback from these structures if part of the project and 200 feet from the property line of these properties if outside the project. 4. The enhanced landscape buffer plan proposed on the concept plan exhibit is conceptual only at this time. The landscape buffer design and required plantings will be reviewed in detail for approval during site plan review and, at minimum, must include a triple row of staggered evergreen and deciduous species meeting the minimum specifications of the landscaping ordinance and of varying heights at maturity where existing vegetation is not being retained. Trees shall be planted no more than ten (10) feet on center. 5. The applicant shall permanently preserve and maintain existing and newly installed buffer landscaping and shall not clear or cut live trees within required setbacks or buffer zones except as necessary to avoid shading of solar panels as approved by the Zoning Administrator. 6. Excluding the bufferyards described above, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a vegetative cover. This vegetative cover will be managed with mowing and/or

grazing. 7. The applicant shall meet any additional delineation and buffer requirements specified by the Virginia Department of Historic Resources prior to receiving final site plan approval. 8. The applicant shall submit an Emergency Response Plan at the time of site development plan application for review and approval by the County, which shall detail fire suppression methods that will be immediately deployed during both construction and operation of the facility. The plan shall include a training program to be provided to emergency responders about safety for on-site incident response. Initiation and frequency of training will be coordinated between the Department of Emergency Services and the facility operator. The applicant shall install a Knox Box or other remote access technology at the facility to ensure emergency responders have access to the facility should the need arise. 9. Hours of operation for construction activities to be limited to 7:00 am to 6:00 pm Monday through Friday and 7:00 am to 5:00 pm on Saturdays. No construction is to occur on Sundays. 10. Topsoil will be conserved on site. 11. The applicant shall reimburse the County for reasonable costs related to retaining such third-party inspectors as deemed necessary for project inspections. 12. Prior to site plan approval, the Applicant shall either adjust the site plan to avoid areas that were determined potentially eligible for the National Register of Historic Places as part of the Phase 1 Archaeological Survey or shall undergo the appropriate Phase 2 close-interval testing to determine if any material is eligible for listing. 13. As part of the site plan review, the Applicant shall provide documentation that the selected panels and all power generating equipment onsite are “Tier 1” modules as established by the most recent “PV Module Tier 1 List” issued by Bloomberg NEF or a similar third-party analysis widely accepted in the solar industry. Additionally, the make and model of the selected panels and all power generating equipment initially installed and replaced on the site must qualify, for disposal purposes, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP). 14. There shall be a sign posted with the contact information for the local project liaison. 15. No salvage value be added to the decommissioning surety bond. 16. If the land area being leased was under crop cultivation prior to lease, it shall be maintained and cut annually during the growing season prior to August 1 until site construction begins.

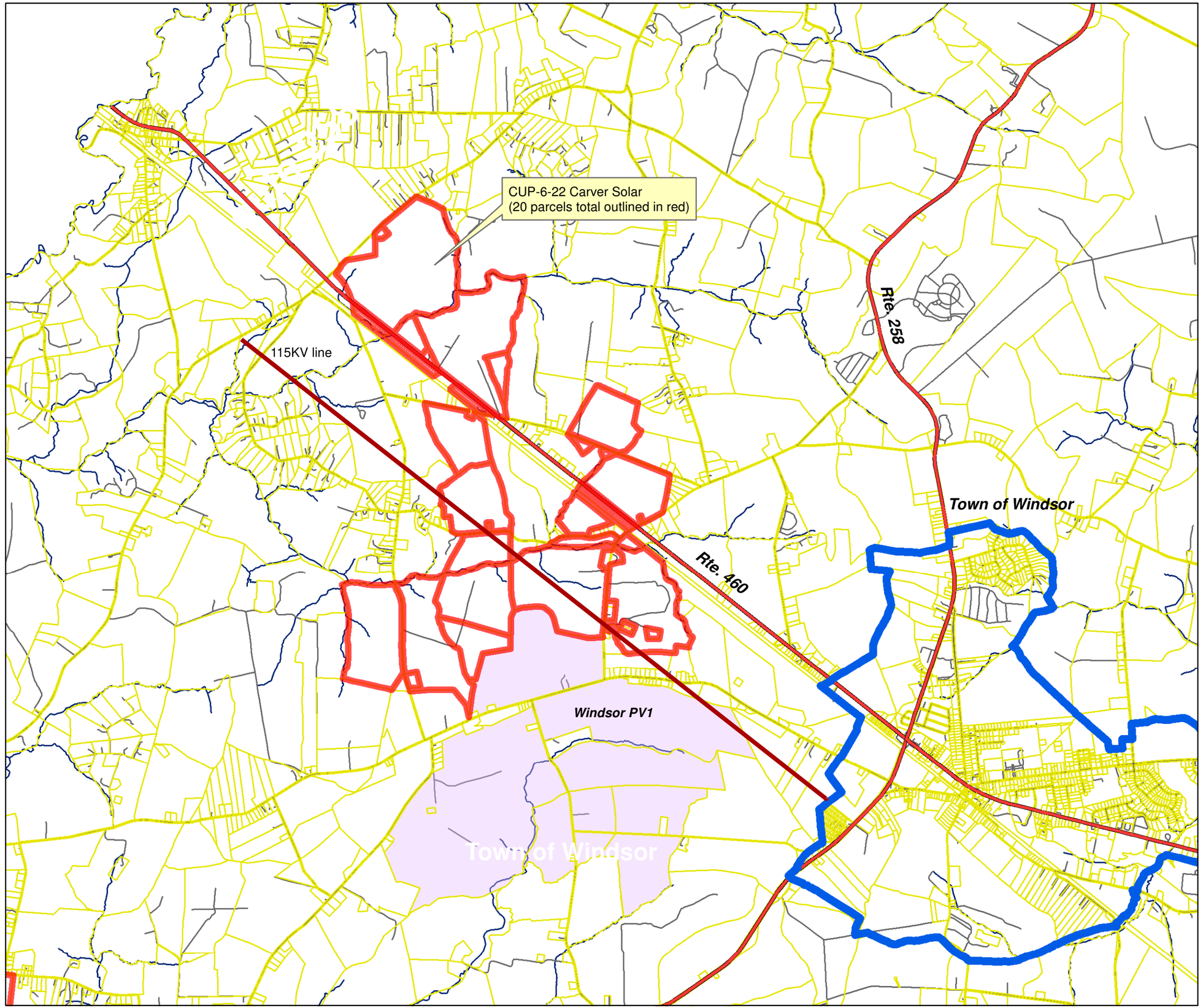
ATTACHMENTS:

Description	Type	Upload Date
Location Map	Backup Material	11/16/2022
Future Land Use Map	Backup Material	11/16/2022
Zoning District Map	Backup Material	11/16/2022
April 2022 Application	Backup Material	11/15/2022
Carver Solar Parcel Map and List	Backup Material	11/16/2022
Project Narrative	Backup Material	11/15/2022
Concept Plan Sheet 3.0	Backup Material	11/15/2022
Proposed Construction Traffic Plan	Backup Material	11/15/2022
Environmental Impact Assessment	Backup Material	11/15/2022
Corps Confirmation	Backup Material	11/15/2022
Phase I Archeological Report	Backup Material	11/15/2022
Phase I Architectural Report	Backup Material	11/15/2022
VDHR Review Comments	Backup Material	11/15/2022
Economic Impact Report	Backup Material	11/15/2022
Approved Solar Facility Table	Backup Material	11/15/2022
Visual Impact Analysis	Backup Material	11/16/2022
Planning Commission Resolution	Resolution	11/22/2022

Property Location Map

Legend

- Carver Solar CUP layer 080422
- Town Limits
- US Highways
- Parcels
- Windsor PV1 2021



N

Future Recommended Land Use Map

Legend

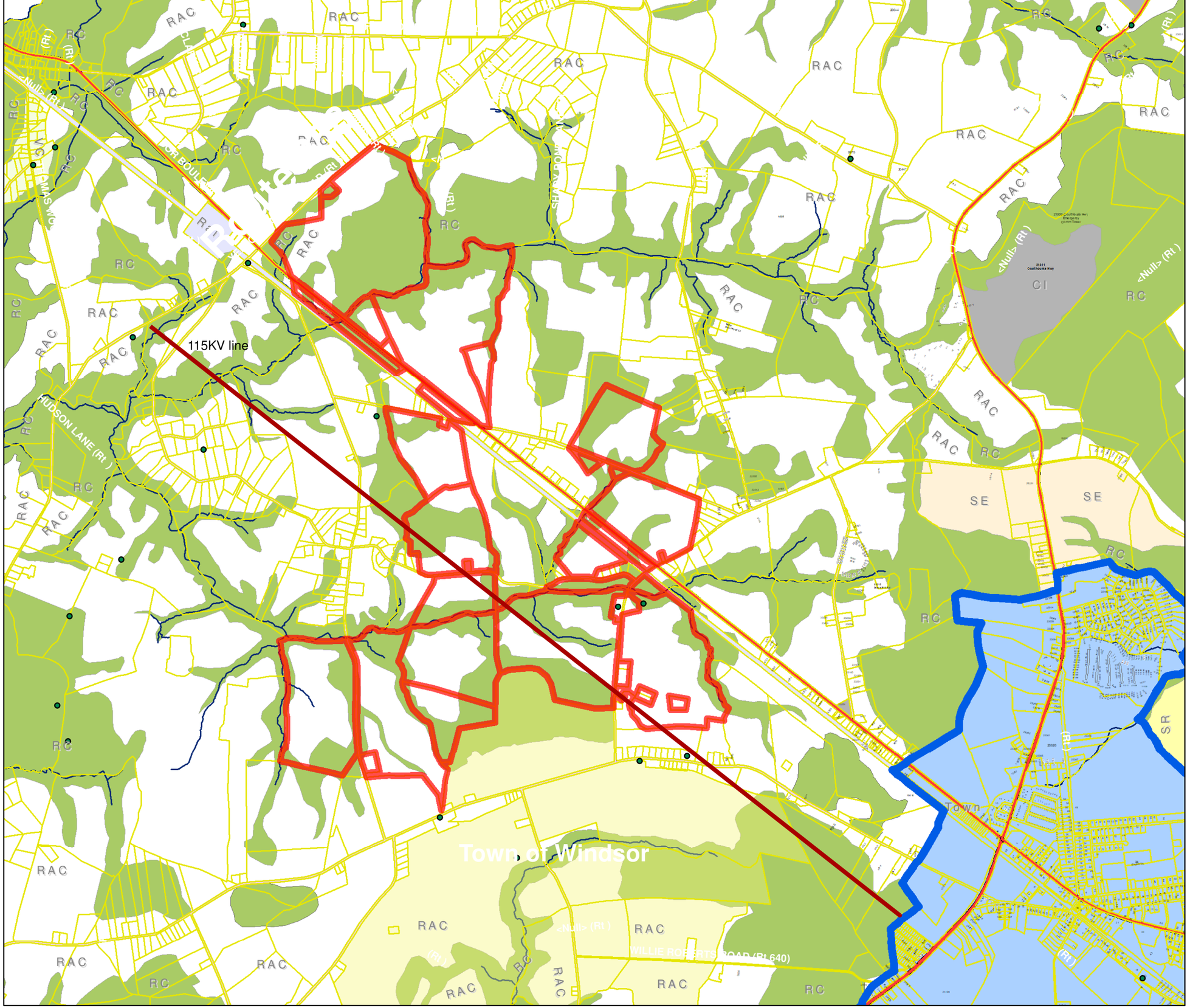
- Carver Solar CUP layer 080422
- Town Limits
- Parcels
- Windsor PV1 2021
- US Highways

Land Use Designations

LAND_USE

- BE
- CD
- CI
- MU
- PI
- RAC
- RC
- Rail
- Road
- SE
- SR
- Town
- UR
- VC

N



Zoning District Map

Legend

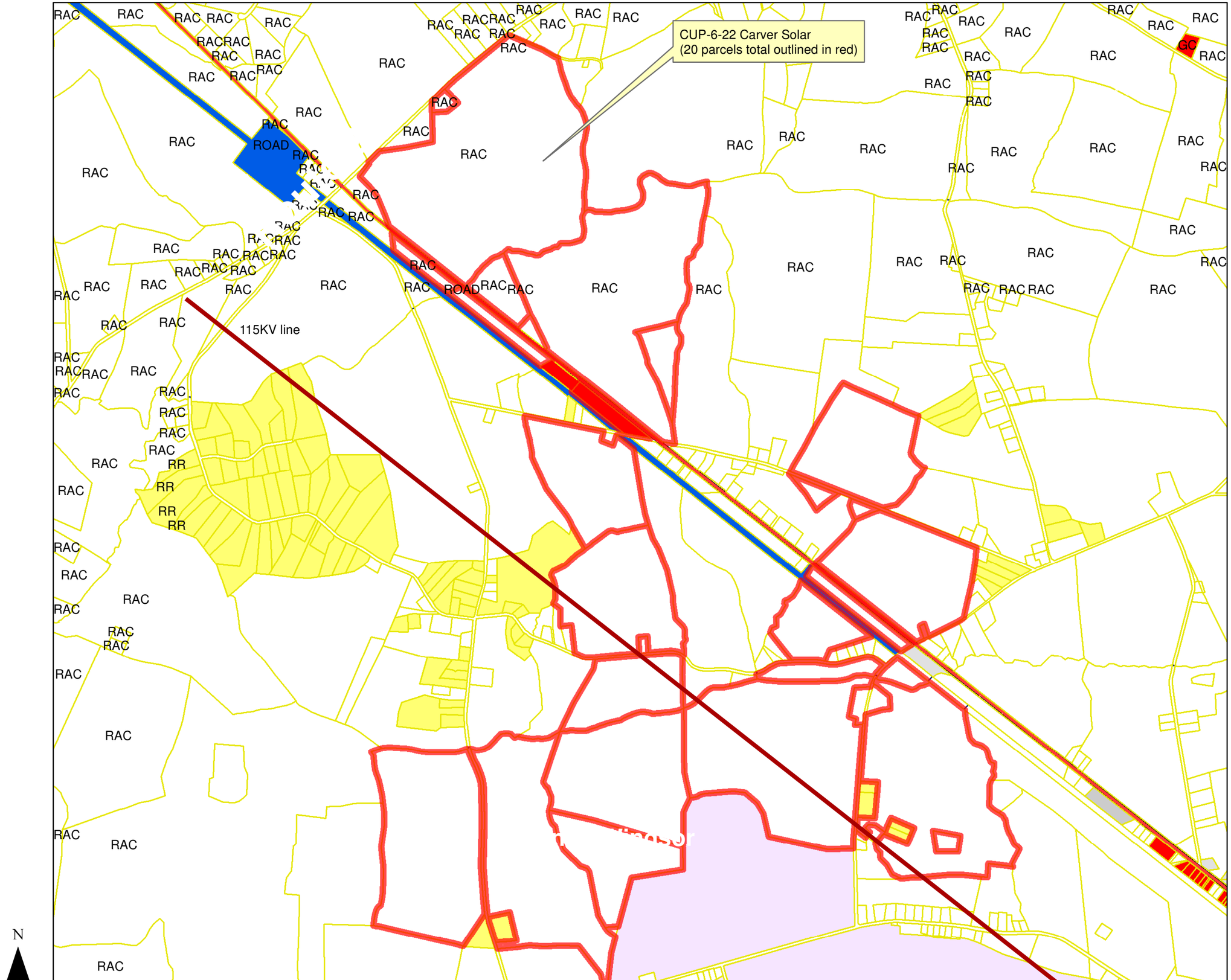
- Carver Solar CUP layer 080422
- Town Limits
- Parcels
- Windsor PV1 2021

Zoning

- <all other values>

Zoning

- A-1
- C-GC
- C-PD-MX
- GC
- GI
- GIC
- LC
- LI
- NC
- PD-MH
- PD-MX
- PD-MX
- PD-R
- RAC
- ROAD
- RR
- SE
- SR
- UR
- VC
- US Highways



Local Roots Global Reach

ISLE OF WIGHT
COUNTY, VIRGINIA
DEPARTMENT OF PLANNING AND ZONING

APPLICATION FOR CONDITIONAL / SPECIAL USE PERMIT

This application should be used to petition for a permit for certain uses which, because of their unique characteristics or potential impacts on adjacent land uses, are not generally permitted in certain zoning districts as a matter of right, but which may, under the right set of circumstances and conditions be acceptable in certain specific locations. The following application requirements are consistent with the procedures set forth in Section 1-1017, *Conditional Uses*, and Section 1-1018, *Special Use Permits for Uses Not Provided For*, of the Isle of Wight County Zoning Ordinance, as amended.

A. APPLICATION FOR (CHECK ALL THAT APPLY):

[X] Conditional Use Permit (Are applicant proposed conditions attached?): ✓ Yes _____ No

The proposed use or activity is listed as a conditional use in the RAC zoning district as per Section 4-2003 in Article IV of the Isle of Wight County Zoning Ordinance.

[ ] Special Use Permit (Are applicant proposed conditions attached?): _____ Yes _____ No

Proposed Use or Activity: Utility Scale Solar Energy Facility

B. PROJECT DESCRIPTION:

Project Name: Carver Solar

Property Address (if any): _____

Election District: D4 and D5

Comprehensive Plan Designation: Solar Farm

The use permit will apply to ~~765~~ acres out of 1,329 total acres

*637 ACRES PER RYAN GILCHRIST 11/2/2022 AMR

Tax Parcel Identification # attached Number of acres to be effected: attached

Tax Parcel Identification # ↓ Number of acres to be effected: ↓

Tax Parcel Identification # ↓ Number of acres to be effected: ↓

Proposed Utilities (check all that apply): N/A Public Water _____ Private Well _____

Public Sewer _____ Private Septic _____

Attachment to Application for Conditional Use Permit

List of Parcels and Participating Owners

TPIN	Parcel Acres	Owner Name	Address	City	State	Zip
53-01-022	140.86	CLEMENTS, CARTER R & JOYCE G	23093 ANTIOCH RD	WINDSOR	VA	23487
53-01-022E	3.02	CLEMENTS, CARTER R	23093 ANTIOCH RD	WINDSOR	VA	23487
53-01-006	118.83	WILLIAMS, TRAVIS W (40 acre partial)	301 MURPHYS MILL RD	SUFFOLK	VA	23434
45-01-065	64.3	LEWIS, CLARENCE LEE TRUSTEE LEWIS CLARENCE LEE TRUST	1203 PONDFIELD WAY	DURHAM	NC	27713
45-01-061	180.75	PRETLOW, JOSHUA JR	6045 EVERETS RD	SUFFOLK	VA	23434
45-01-061C	14.4	PRETLOW, JOSHUA JR	6045 EVERETS RD	SUFFOLK	VA	23434
53-01-001	96.09	GARRISON FARMS SOLAR LLC	519 GREENE RIDGE	RICHMOND	VA	23229
46-01-019A	74.61	GARRISON FARMS SOLAR LLC	519 GREENE RIDGE	RICHMOND	VA	23229
52-01-028	147	CARR, DELMAN LEW TRUSTEE OF DELMAN LEW CARR TRUST	844 COLONEL MEADE DR	SUFFOLK	VA	23434
52-01-039	95	CARR, CHESTER GLENN & SUSAN S TRS CHESTER G CARR TRUST	28124 SPIVEY TOWN RD	WINDSOR	VA	23487
52-01-037	30.5	CARR, CHESTER GLENN & SUSAN S TRS CHESTER G CARR TRUST	28124 SPIVEY TOWN RD	WINDSOR	VA	23487
52-01-036	90	CARR, CHESTER GLENN & SUSAN S TRS CHESTER G CARR TRUST	28124 SPIVEY TOWN RD	WINDSOR	VA	23487
45-01-059	245.62	HOBBS, HELENE JOHNSON	21539 BARRETT TOWN RD	ZUNI	VA	23898
45-01-068	98	HOBBS, HELENE JOHNSON	21539 BARRETT TOWN RD	ZUNI	VA	23898
45-01-059A	2.38	HOBBS, HELENE JOHNSON	21539 BARRETT TOWN RD	ZUNI	VA	23898
45-01-061B	6.27	JOEST PROPERTIES LLC	PO BOX 204	WINDSOR	VA	23487
52-01-034	84.87	THOMASON, SCOTT L & CARLA A	7419 MILL CREEK DR	ZUNI	VA	23898
52-01-035	42.21	EDWARDS, JAMES K & MARSHA F	22149 LITTLE BEACH LN	CARROLLTON	VA	23314
53-01-003	43.88	COBB LAND LIMITED PARTNERSHIP	8135 W BLACKWATER RD	WINDSOR	VA	23487
53-01-003M	5.96	ROBINSON, TROY L & MARGARET F	22451 ANTIOCH RD	ZUNI	VA	23898
TOTALS:	1,329					

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): Carver Solar 1, LLC

Address: 1105 Navasota St

City, State, Zip Code: Austin, TX 78702

Phone No.: 512-524-1195 Email: contact@openroadrenewables.com Fax No.:

Property Owner(s) Name(s): attached

Address: attached

City, State, Zip Code:

Phone No.: Email: Fax No.:

Applicant Signature Date 3/17/22

Owner Signature *if different* Date

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

FOR OFFICE USE ONLY:

Complete Application Received On: _____ Fees Paid: _____
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Posted/Date to Post: _____

AGENCIES REFERRALS:

_____ Department of Conservation & Recreation
_____ Economic Development
_____ Emergency Services
_____ General Services
_____ Environmental Planner
_____ Health Department
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_____ Commission of Revenue
_____ Other _____

_____ Inspections
_____ Sheriff's Office
_____ Town of Smithfield
_____ Town of Windsor
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_____ Schools
_____ Budget & Finance
_____ County Attorney

Verified By: _____ Date: _____

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): Carver Solar I, LLC

Address: 1105 Navasota Street

City, State, Zip Code: Austin, TX 78702

Phone No.: 512-524-1195 Email: contact@openroadrenewables.com Fax No.: _____

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City, State, Zip Code: attached

Phone No.: _____ Email: _____ Fax No.: _____

Ryan Gilchrist March 17, 2022

Applicant Signature **Date**

Owner Signature *if different* **Date** March 22, 2022

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_____ County Attorney

Verified By: _____ Date: _____

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City, State, Zip Code: Austin, TX 78702

Phone No.: 512-524-1195 Email: contact@openroadrenewables.com Fax No.:

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Address: attached

City, State, Zip Code: attached

Phone No.: Email: Fax No.:

Ryan Gilchrist March 17, 2022

Applicant Signature **Date**

Delman Lee Carr March 22, 2022

Owner Signature *if different* **Date**

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City, State, Zip Code: attached

Phone No.: _____ Email: _____ Fax No.: _____

Ryan Gilchrist March 17, 2022

Applicant Signature **Date**

Carter R Clements 3-23-22

Owner Signature ***if different*** **Date**

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Phone No.: _____ Email: _____ Fax No.: _____

Property Owner(s) Name(s): _____

Address: _____

City, State, Zip Code: _____

Phone No.: _____ Email: _____ Fax No.: _____

_____ March 17, 2022
Applicant Signature **Date**

Cobb Land L.P. By James Cobb 3-24-22
Owner Signature *if different* **Date**

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Property Owner(s) Name(s): attached

Address: attached

City, State, Zip Code: attached

Phone No.: _____ Email: _____ Fax No.: _____

Ryan Gilchrist March 17, 2022

Applicant Signature **Date**

Jana K. Edwards 3/24/22

Owner Signature *if different* **Date**

Marsha J Edwards

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

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Phone No.: 512-524-1195 Email: contact@openroadrenewables.com Fax No.:

Property Owner(s) Name(s): attached

Address: attached

City, State, Zip Code: attached

Phone No.: Email: Fax No.:

Ryan Gilchrist March 17, 2022

Applicant Signature **Date**

William E. Garrison, III March 22, 2022

Owner Signature ***if different*** **Date**

as Managing Member
Garrison Farms Solar, LLC

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

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Verified By: _____ Date: _____

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Phone No.: 512-524-1195 Email: contact@openroadrenewables.com Fax No.: _____

Property Owner(s) Name(s): attached

Address: attached

City, State, Zip Code: attached

Phone No.: _____ Email: _____ Fax No.: _____

Ryan Gilchrist March 17, 2022

Applicant Signature **Date**

Daphne Holmes, Individually Mar 30, 2022

Owner Signature *if different* **Date**

and as the Executor of the Estate of Helen Johnson Holmes Deceased.

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

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_____ Budget & Finance
_____ County Attorney

Verified By: _____ Date: _____

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Phone No.: 512-524-1195 Email: contact@openroadrenewables.com Fax No.: _____

Property Owner(s) Name(s): attached

Address: attached

City, State, Zip Code: attached

Phone No.: _____ Email: _____ Fax No.: _____

Ryan Gilchrist — March 17, 2022

Applicant Signature **Date**

March 23, 2022

Owner Signature ***if different*** **Date**

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Property Owner(s) Name(s): attached

Address: attached

City, State, Zip Code: attached

Phone No.: _____ Email: _____ Fax No.: _____

Ryan Gilchrist March 17, 2022

Applicant Signature **Date**

[signature] March 31, 2022

Owner Signature *if different* **Date**

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

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Address: 1105 Navasota Street

City, State, Zip Code: Austin, TX 78702

Phone No.: 512-524-1195 Email: contact@openroadrenewables.com Fax No.:

Property Owner(s) Name(s): attached

Address: attached

City, State, Zip Code: attached

Phone No.: Email: Fax No.:

Ryan Gilchrist March 17, 2022

Applicant Signature **Date**

Owner Signature *if different* **Date** 3/21/22

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

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City, State, Zip Code: Austin, TX 78702

Phone No.: 512-524-1195 Email: contact@openroadrenewables.com Fax No.: _____

Property Owner(s) Name(s): attached

Address: attached

City, State, Zip Code: attached

Phone No.: _____ Email: _____ Fax No.: _____

Ryan Gilchrist March 17, 2022

Applicant Signature **Date**

Tracy L Robinson Margaret Robinson 3-22-2022

Owner Signature *if different* **Date**

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

FOR OFFICE USE ONLY:

Complete Application Received On: _____ Fees Paid: _____
Tax Query: [ ] Current [ ] Delinquent Distribution Date: _____
Posted/Date to Post: _____

AGENCIES REFERRALS:

_____ Department of Conservation & Recreation
_____ Economic Development
_____ Emergency Services
_____ General Services
_____ Environmental Planner
_____ Health Department
_____ Transportation Manager
_____ Commission of Revenue
_____ Other _____

_____ Inspections
_____ Sheriff's Office
_____ Town of Smithfield
_____ Town of Windsor
_____ VDOT
_____ Schools
_____ Budget & Finance
_____ County Attorney

Verified By: _____ Date: _____

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): Carver Solar I, LLC

Address: 1105 Navasota Street

City, State, Zip Code: Austin, TX 78702

Phone No.: 512-524-1195 Email: contact@openroadrenewables.com Fax No.: _____

Property Owner(s) Name(s): attached

Address: attached

City, State, Zip Code: attached

Phone No.: _____ Email: _____ Fax No.: _____

Ryan Gilchrist — March 17, 2022

Applicant Signature **Date**

_____ — March 30, 2022

Owner Signature *if different* **Date**

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

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Property Owner(s) Name(s): attached

Address: attached

City, State, Zip Code: attached

Phone No.: _____ Email: _____ Fax No.: _____

Ryan Gilchrist March 17, 2022

Applicant Signature **Date**

[signature] 3/29/2022

Owner Signature *if different* **Date**

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

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_____ Economic Development
_____ Emergency Services
_____ General Services
_____ Environmental Planner
_____ Health Department
_____ Transportation Manager
_____ Commission of Revenue
_____ Other _____

_____ Inspections
_____ Sheriff's Office
_____ Town of Smithfield
_____ Town of Windsor
_____ VDOT
_____ Schools
_____ Budget & Finance
_____ County Attorney

Verified By: _____ Date: _____

COUNTY OF ISLE OF WIGHT
DISCLOSURE OF REAL ESTATE HOLDINGS

Applicant Carver Solar 1, LLC

Address 1105 Navasota St
Street

Austin TX 78702
City State Zip

REAL ESTATE HOLDINGS TO BE AFFECTED

Location or Address	Description
attached	

OTHER OWNERS OF AFFECTED REAL ESTATE
(Not Required for Corporation whose stock is traded on a national or local stock exchange or having more than 500 shareholders.)

Name of Individuals Corporation/Partnership Business Association	Address
attached	

Does any member of the Isle of Wight County Planning Commission or governing body have any interest in such property, either individually, by ownership of stock in a corporation owning such land, partnership, as the beneficiary of a trust, or the settlor of a revocable trust, or whether a member of the immediate household of any member of the Planning Commission or governing body has any such interest? Yes[ ] No[X]
If yes, names of members:

I do solemnly swear that the foregoing statement(s) and attachments(s), if any, are complete, correct, and true.

Applicant: Ryan Gilchrist Applicant: _____ Date: 4/5/22
Printed or Typed Name Signature

Commonwealth of Virginia
County of ~~Isle of Wight~~ Albemarle
MCS

Subscribed and sworn to before me Michelle Leigh Smith.
A Notary Public in and for the County of ~~Isle of Wight~~, Commonwealth of Virginia, this 5th day of April MCS Albemarle, 2022.

Michelle Leigh Smith
Notary Public

Michelle Leigh Smith
NOTARY PUBLIC
REG. #7625737
COMMONWEALTH OF VIRGINIA
MY COMMISSION EXPIRES November 30, 2024

My Commission Expires November 30 2024

Attachment to Real Estate Disclosures

Carver Solar I, LLC

PARTICIPATING PROJECT PARCELS					
MAP IDENTIFIER	PARCEL IDENTIFIER	OWNER	OWNER CONTINUED	ZONING	FENCED ACREAGE
1	52-01-028	CARR DELMAN LEW TRUSTEE OF DELMAN LEW CA	RR TRUST	RAC	Fenced Area
2	52-01-036	CARR CHESTER GLENN & SUSAN S TRS CHESTER	G CARR REVOCABLE TRUST	RAC	Fenced Area
3	45-01-059	HOBBS HELEN JOHNSON		RAC	Fenced Area
4	45-01-059A	HOBBS M E & HELEN J		RAC	Fenced Area
5	45-01-061	PRETLOW JOSHUA JR TRUSTEE JOSHUA PRETLOW	JR REVOC TRUST	RAC	Fenced Area
6	45-01-061C	PRETLOW JOSHUA JR TRUSTEE JOSHUA PRETLOW	JR REVOC TRUST	RAC	Fenced Area
7	45-01-065	LEWIS CLARENCE LEE TRUSTEE LEWIS CLARENC	E LEE REVOCABLE TRUST	RAC	Fenced Area
8	45-01-068	HOBBS HELEN JOHNSON L/E		RAC	Fenced Area
9	52-01-037	CARR CHESTER GLENN & SUSAN S TRS CHESTER	G CARR REVOCABLE TRUST	RAC	Fenced Area
10	52-01-039	CARR CHESTER GLENN & SUSAN S TRS CHESTER	G CARR REVOCABLE TRUST	RAC	Fenced Area
11	53-01-001	GARRISON FARMS SOLAR LLC		RAC	Fenced Area
12	53-01-006	WILLIAMS TRAVIS W		RAC	Easement
13	53-01-022	CLEMENTS CARTER R & JOYCE G		RAC	Fenced Area
14	53-01-022E	CLEMENTS CARTER R		RAC	Fenced Area
15	46-01-019A	GARRISON FARMS SOLAR LLC		RAC	Fenced Area
16	52-01-034	THOMASON SCOTT L & CARLA A		RAC	Easement
17	52-01-035	EDWARDS JAMES K & MARSHA F		RAC	Easement
18	45-01-061B	JOEST PROPERTIES LLC		GC	Easement
19	53-01-003	COBB LAND LIMITED PARTNERSHIP		RAC	Easement
20	53-01-003M	ROBINSON TROY L & MARGARET F		RAC	Easement

SUBMITTAL CHECKLIST FOR CONDITIONAL / SPECIAL USE PERMIT APPLICATIONS

In conjunction with Section 1-1017, *Conditional Uses*, and Section 1-1018, *Special Uses Permits for Uses Not Provided For*, of the Isle of Wight County Zoning Ordinance, as amended, the following information shall be submitted for a Conditional / Special Use Permit Application. Please note that it is the applicant's responsibility to ensure that the application is in compliance with all Federal, State and County regulations.

No application for a Conditional / Special Use shall be certified as complete unless the following information is provided**, unless the Zoning Administrator reduces the number of required copies.**

Ten (10) copies of the original, executed application and one (1) original executed application, **unless the Zoning Administrator reduces the number of required copies**. Both the applicant(s) and the property owner(s) must have their signature(s) notarized on page No. 3 of the application.

The appropriate fees have been submitted with the application. Checks should be made payable to: Treasurer, Isle of Wight County.

Ten (10) copies of a statement of the reasons for seeking such permit **unless the Zoning Administrator reduces the number of required copies**. and if applicable, a statement of conditions.

Ten (10) of a narrative description of the property which shall include the Tax Parcel Identification Number **unless the Zoning Administrator reduces the number of required copies**.

A concept plan of the property showing all existing and proposed physical improvements and such other information as is necessary to clearly indicate to the Planning Commission and Board of Supervisors that adequate provisions shall be made for compliance with all standards for that particular use and the extent of the property to be so used on a given parcel or parcels. Such document shall be drawn to scale and shall include the following information:

- A vicinity map at a scale of no less than one (1) inch equals two thousand (2,000) feet
- Title of drawing
- Date of drawing
- Existing wood line
- North arrow
- Scale bar
- Current zoning of parcel(s) to be rezoned, including tax map number(s) and owner(s)
- Current zoning of adjacent parcel(s), including tax map number(s) and owner(s)
- Street names including route number and width(s) of the right-of-way(s)
- Ten (10) full size copies, with one (1) reduced 11-inch X 17-inch copy shall be submitted

- Please note that additional information on the site layout may be requested by the Zoning Administrator during the review process to **review the application and prepare the staff reports for the Planning Commission and Board Supervisors more effectively**.

Ten (10) copies of such supplemental material as may be necessitated by the proposal itself or the district in which located or proposed to be located, and in accordance with Section 5-5000, *Supplementary Use Regulations,* of the Isle of Wight County Zoning Ordinance.

A WQIA (Water Quality Impact Assessment) if located in the Chesapeake Bay Preservation Area.

All real estate taxes must be paid and current at the time of submittal; otherwise, the submittal will be refused at the counter. Proof of the most recent tax payment to the County must accompany the application.

I, the undersigned, certify that this application is complete, accurate and contains all required and requested information, documents and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete and correct information available. I understand that any section not completed in its entirety may delay processing of this application and the date of the Planning Commission public hearing and that the submittal of a complete application does not guarantee application will be placed on the next available Planning Commission agenda.

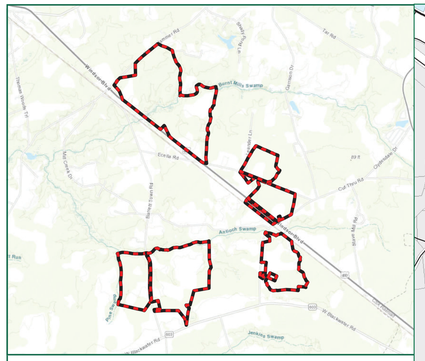
Ryan Gilchrist

Printed or Typed Name

Signature

4/5/22

Date



Legend

- Property Limits - 1,584.6
- Project Parcel
- Easement Parcel

Zone

- General Commercial District (GC)
- General Industrial District (GI)
- Limited Industrial District (LI)
- Planned Development Manufactured Home Park District (PD-MH)
- Rual Agricultural Conservation District
- Rural Residential District (RR)

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.
1001 Boulders Parkway, Suite 300
Richmond, VA 23225
TEL 804.200.6500
www.timmons.com

OPEN ROAD RENEWABLES
1105 Navasota Street
Austin, TX 78702
TEL 512.524.1195
www.openroadrenewables.com

CARVER SOLAR
ISLE OF WIGHT COUNTY, VIRGINIA

DATE	08/30/2022
PROJECT NUMBER	38786.012
PROJECT NAME	CARVER SOLAR
DESIGNED BY / DRAWN BY	J. FRAZIER

NOTES:
1. PROJECT STUDY LIMITS ARE APPROXIMATE.
2. PARCEL AND ZONING DATA IS FROM ISLE OF WIGHT COUNTY.
3. SEE SHEET C2.1 FOR PARCEL PIN AND OWNER INFORMATION.

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REVISIONS

#	MM/DD/YY	DESCRIPTION

DRAWING DESCRIPTION
PARCEL AND ZONING MAP

SCALE (FEET)
0 1,000 2,000
PLANS PRINTED AS 11X17 ARE HALF SCALE

SCALE	SHEET NUMBER
H:1 " = 1,000 '	C2.0

Y:\851\38786.012-Carver_Solar\GIS\CUP\38786.012-CUP Parcel Map.mxd

PARTICIPATING PROJECT PARCELS							
MAP IDENTIFIER	PARCEL IDENTIFIER	OWNER	OWNER CONTINUED	PARCEL ACREAGE	PARCEL TYPE	LAND ACREEMENT	ZONING
1	52-01-028	CARR DELMAN LEW TRUSTEE OF DELMAN LEW CA	RR TRUST	147.00	Project Parcel	Purchase	RAC
2	52-01-034	THOMASON SCOTT L & CARLA A		84.87	Easement	Easement	RAC
3	52-01-035	EDWARDS JAMES K & MARSHA F		42.21	Easement	Easement	RAC
4	52-01-036	CARR CHESTER GLENN & SUSAN S TRS CHESTER	G CARR REVOCABLE TRUST	90.00	Project Parcel	Purchase	RAC
5	45-01-059	HOBBS HELEN JOHNSON		245.62	Project Parcel	Lease	RAC
6	45-01-059A	HOBBS M E & HELEN J		2.38	Project Parcel	Lease	RAC
7	45-01-061	PRETLOW JOSHUA JR TRUSTEE JOSHUA PRETLOW	JR REVOC TRUST	180.75	Project Parcel	Purchase	RAC
8	45-01-061B	JOEST PROPERTIES LLC		6.27	Easement	Easement	GC
9	45-01-061C	PRETLOW JOSHUA JR TRUSTEE JOSHUA PRETLOW	JR REVOC TRUST	14.40	Project Parcel	Purchase	RAC
10	45-01-065	LEWIS CLARENCE LEE TRUSTEE LEWIS CLARENC	E LEE REVOCABLE TRUST	64.30	Easement	Lease	RAC
11	45-01-068	HOBBS HELEN JOHNSON L/E		98.00	Project Parcel	Lease	RAC
12	52-01-037	CARR CHESTER GLENN & SUSAN S TRS CHESTER	G CARR REVOCABLE TRUST	30.50	Project Parcel	Purchase	RAC
13	52-01-039	CARR CHESTER GLENN & SUSAN S TRS CHESTER	G CARR REVOCABLE TRUST	95.00	Project Parcel	Purchase	RAC
14	53-01-001	GARRISON FARMS SOLAR LLC		96.09	Project Parcel	Lease	RAC
15	53-01-003	COBB LAND LIMITED PARTNERSHIP		43.88	Easement	Easement	RAC
16	53-01-003M	ROBINSON TROY L & MARGARET F		5.96	Easement	Easement	RAC
17	53-01-006	WILLIAMS TRAVIS W		118.83	Easement	Easement	RAC
18	53-01-022	CLEMENTS CARTER R & JOYCE G		140.86	Project Parcel	Lease	RAC
19	53-01-022E	CLEMENTS CARTER R		3.02	Project Parcel	Lease	RAC
20	46-01-019A	GARRISON FARMS SOLAR LLC		74.61	Project Parcel	Lease	RAC

TOTAL ACREAGE =	1,584.6

ADJACENT PARCELS				
MAP IDENTIFIER	PARCEL IDENTIFIER	OWNER	ZONING	LAND USE
21	52-01-004	BOSTON TIMBER OPPORTUNITIES LLC C/O HANC	RAC	Commercial Timber
22	52-01-026	AUSTIN EMORY J & PAULINE C TRS AUSTIN RE	RAC	Agriculture
23	52-01-027	JONES WILLIAM F & JONES JAMES R & KYLE C	RAC	Agriculture
24	52-01-029	COUNCIL RAYMOND JR & TINIKA S	RAC	Forest
25	52-01-031	COFIELD JASON E	RAC	Agriculture
26	52-01-031N	THOMASON SCOTT L & CARLA ANNE	RR	Residential
27	46-01-010	CROCKER MINNIE C	RAC	Forest
28	52-01-035A	TUCK PRENTICE G JR & MADELINE R	RAC	Residential
29	45-01-028	MUNFORD RICHARD S MD	RAC	Forest
30	45-01-029	MUNFORD RICHARD S MD	RAC	Agriculture/Forest
31	45-01-056	GARRIS PAUL J III & SHERRY J	RAC	Residential
32	45-01-056B	DAVIS NATHANIEL LLOYD	RAC	Residential
33	45-01-058	ROYES ADRIENNE	RAC	Residential
34	45-01-058B	HANSON GARY J & KATHY TAYLOR	RAC	Residential
35	45-01-059	HOBBS HELEN JOHNSON	RAC	Forest
36	45-01-060	HASKINS ROSS S JR & MARY L	RAC	Timber/Industry
37	45-01-061A	JOEST PROPERTIES LLC	GC	Open Space
38	45-01-063A2	SLOAN DAVID R	RAC	Residential
39	45-01-063A3	SPRATLEY GLORIA B	RAC	Forest
40	45-01-064	LEWIS THOMAS L JR	RAC	Residential
41	45-01-066	CHAPMAN JOSEPH S ESTATE C/O CYNTHIA SMIT	RAC	Agriculture
42	45-01-066A	DOUGLAS JOHN A	RR	Residential
43	45-01-066B	WILDER TOM J & HAZEL M	RAC	Residential
44	45-01-066C	LEWIS CLARENCE LEE TRUSTEE LEWIS CLARENC	RAC	Residential
45	45-01-067	KELLEY HELEN J	RAC	Residential
46	45-01-068	HOBBS HELEN JOHNSON L/E	RAC	Forest
47	45-01-070	PHILLIPS BRENDA M L/E	RAC	Agriculture/Forest
48	45-04-001	BREWSTER-YATOR DEBORAH K	RAC	Residential
49	45-04-002	WRIGHT LINDA	RAC	Residential
50	45-04-003	ARNOLD ROBERT E & LAURA W	RAC	Residential
51	45-04-004	PHELPS HARRELL R	RAC	Residential
52	46-01-011	HARDISON THEODORE M & JANICE A L/E	RAC	Residential/Agriculture
53	46-01-011B	FRANKLIN HERBERT D & SANDRA G	RAC	Residential
54	52-01-039A	CARR DELMAN LEW TRUSTEE OF DELMAN LEW CA	RAC	Forest
55	52-01-040	AUSTIN EMORY J & PAULINE C TRS AUSTIN RE	RAC	Residential/Agriculture
56	52-01-041	TR CHAPEL GROVE CHURCH CEM	RAC	Forest
57	53-01-002	GARRISON FARMS LLC C/O GARRISON WILLIAM	RAC	Open Space
58	53-01-003B	PILAND ALAN ERIC	RAC	Residential
59	53-01-003F	ROBINSON TROY L & MARGARET F	RAC	Residential
60	53-01-003H	MOSS KYLE A	RAC	Residential
61	53-01-003L	TSBA INVESTMENTS LLC	LI	Business
62	53-01-004	WILLIAMS TRAVIS W	RAC	Residential/Agriculture
63	53-01-007	COBB LAND LIMITED PARTNERSHIP	RAC	Residential/Agriculture/Forest
64	53-01-008		RAC	VEPCO Substation
65	53-01-009	MONROE CHERYL B & BOSTIC HAYWOOD W JR	RAC	Agriculture
66	53-01-009A	LANKFORD MELVIN L & LORETTA H	RAC	Residential
67	53-01-010	MONROE CHERYL B & BOSTIC HAYWOOD W JR	RAC	Residential/Agriculture/Forest
68	53-01-014	WRIGHT CLARENCE E & WRIGHT CARLTON E & D	RAC	Residential/Forest
69	53-01-020	COBB LAND LIMITED PARTNERSHIP	RAC	Agriculture/Forest
70	53-01-021	BYRUM RICHARD L & JANICE F & BYRUM JOHN	RAC	Forest
71	53-01-022A	CLEMENTS CARTER R & JOYCE G	RR	Residential
72	53-01-022B	WOOTEN YOLANDA	RR	Residential
73	53-01-022C	BLOUNT KENNETH M & YOLANDA B	RR	Residential
74	53-01-022D	BLOUNT KENNETH M & YOLANDA B	RR	Forest
75	53-01-023	TR ANTIOCH CHRISTIAN CHURCH	RAC	Church
76	53-01-024	TR ANTIOCH CHURCH CEMETERY	RAC	Cemetery
77	53-01-026	STEPHENSON FAYE E	RAC	Residential
78	53-01-027	SPECIAL K'S LLC	RAC	Forest/Agriculture
79	53-01-105	NORFOLK SOUTHERN CORP TAXATION DEPT	RAC	Forest
80	53-05-000A	ARANA VICKIE LYNN	RAC	Residential
81	53-05-000B	HULETT EMBER R	RAC	Residential
82	46-01-012	EVANS-GALLIEN KATINA L & DURHAM MIRANDA	RAC	Residential/Agriculture
83	46-01-012A	EVANS-GALLIEN KATINA L & DURHAM MIRANDA	RAC	Agriculture/Forest
84	46-01-013	DUCKS FARMS LLC	RAC	Residential/Agriculture/Forest
85	46-01-016	CHAPMAN JOSEPH S ESTATE C/O CYNTHIA SMIT	RAC	Residential
86	46-01-018	BOOKER VIRGINIA M	RAC	Residential
87	46-01-020	PIERCE ELLA M EST C/O HOWELL NANCY P	RAC	Agriculture/Forest
88	46-01-020A	TOMLIN HARVEY N	RAC	Residential
89	46-01-020B	GPSP PROPERTIES LLC	RAC	Residential
90	46-01-021B	BRASWELL EARL WAYNE & DEBORAH	RAC	Residential
91	46-02-000A	GOODWIN AUSTIN C & JOANNE E	RAC	Forest
92	46-02-000B	SATORRE-HARRIS CASIANA	RC	Residential
93	46-05-000A	BRYAN RONALD P H JR	RR	Residential
94	46-05-000B	CHERRY DAWN P	RR	Residential
95	46-05-000C	JOHNSON CLAYTON L & PEGGY J	RR	Residential
96	52-01-039	CARR CHESTER GLENN & SUSAN S TRS CHESTER	RR	Forest
97	52-01-038	JONES JAMES JR & JONES MILDRED O &	RAC	Forest

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CARVER SOLAR
ISLE OF WIGHT COUNTY, VIRGINIA

DATE: 08/30/2022
PROJECT NUMBER: 38786.012
PROJECT NAME: CARVER SOLAR
DESIGNED BY / DRAWN BY: J. FRAZIER

NOTES:
NOTES:
1. PARCEL AND ZONING DATA IS FROM ISLE OF WIGHT COUNTY.

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REVISIONS

#	MM/DD/YY	DESCRIPTION

DRAWING DESCRIPTION: PARCEL INFORMATION SHEET

PLANS PRINTED AS 11X17 ARE HALF SCALE

SCALE:

SHEET NUMBER: C2.1

APPLICATION

FOR

CONDITIONAL USE PERMIT

FOR THE

CARVER SOLAR PROJECT

ISLE OF WIGHT COUNTY, VIRGINIA

September 2022

Prepared by: Carver Solar I, LLC
1105 Navasota Street
Austin, TX 78702
Contact: Ryan Gilchrist
Tel: (203) 804-1207

With Assistance From: The Timmons Group
1001 Boulders Parkway, Suite 300
Richmond, VA 23225

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Exhibits

Exhibit 1	Application for Conditional Use Permit
Exhibit 2	Request for Substantially in Accord Determination
Exhibit 3	Description of Project Components
Exhibit 4	Parcel and Zoning Map
Exhibit 5	Concept Plan
Exhibit 6	Preliminary Landscaping Plan
Exhibit 7	Visual Impact Analysis
Exhibit 8	Transportation Plan and Intersection Site Distance Plan
Exhibit 9	Proposed Access/Haul Routes
Exhibit 10	Environmental Resource Impact Analysis
Exhibit 11	Phase 1 Environmental Site Assessment
Exhibit 12	Phase 1A Historical and Cultural Resource Impact Analysis
Exhibit 13	Phase 1 Architectural Resources Survey
Exhibit 14	Phase 1 Archaeological Resources Summary of Findings
Exhibit 15	Preliminary Decommissioning Plan
Exhibit 16	Economic Impact Analysis
Exhibit 17	Proposed Conditions
Exhibit 18	Interconnection Application
Exhibit 19	Preliminary Jurisdictional Determination of Wetlands

I. Summary

This Application for a Conditional Use Permit ("CUP") for the Carver Solar Project, a solar facility with a capacity of 71 megawatts alternating current ("Application"), is submitted to Isle of Wight County, Virginia ("County") by Carver Solar I, LLC ("Applicant") to construct, operate and decommission the Carver Solar Project ("Project"). The completed application forms are attached in **Exhibit 1**. The Project will fully comply with the County's zoning requirements for utility-scale solar facilities, including revisions recently recommended by the Planning Commission. The Application provides the information needed for the County to issue a CUP for the Project. The corresponding request for a "Substantially in Accord" determination is attached as **Exhibit 2.** Note that approval of the CUP, if issued with a statement affirming consistency or lack of conflict with the Comprehensive Plan, will be sufficient from Applicant's perspective to constitute a "Substantially in Accord" determination.

The Project will be a solar electric generation facility consisting of a series of separately-fenced fields of ground-mounted solar panels connected by buried cables and access roads to a new point of interconnection on one of the County's primary transmission lines. The Project will connect with an existing transmission line and will not require any upgrades to the transmission line. The Project will generate electricity with virtually no light, noise, odor, dust or traffic, and it will not produce any air pollution, water pollution or waste or use any pipelines or fuel.

Most of the Project will consist of open space between and around the solar panels. Within the Project's fence lines, the ground surface will be planted with native grasses that will preserve the soil, minimize erosion, and improve water quality. The Project will require relatively few changes to the land, with topsoil remaining within the Project Area and few underground foundations. At the end of the useful life of the solar panels, the equipment will be removed, and the land can again be used for farming (or other uses).

As a highly passive use, the Project will do no harm to the rural character of the area. The solar panels will have a low and consistent visual profile and the Project's perimeter will include substantial setbacks from parcel lines and public roads, which will contain landscaping consisting of retained existing and/or planted vegetation exceeding the County's requirements. The Project will be monitored remotely with workers visiting

different areas of the Project only as needed to perform inspections, maintenance, and repairs.

The Project will provide a minimum of $6.1 million in new revenue to the County over its 40-year life, and this figure is conservative since it does not include additional, voluntary payments that Applicant could be in a position to make to the County under a "solar siting agreement" authorized under recent state legislation It also will boost economic activity in the form of additional local spending during construction. Most of the land for the Project will be leased, and the participating families will earn steady revenue for decades, much of which may be spent and reinvested locally.

II. Project Description

A. Project Components

The Project will consist of long rows (also called "arrays") of solar panels mounted on metal posts in open fields that are connected with electric cables. The power from each solar panel will be combined, converted from direct current ("DC") to alternating current ("AC"), and its voltage will be stepped up to match that of the existing "Myrtle-Windsor 115 kV" transmission line, to which the Project will connect. The Project will include the following primary components:

Component	Description
Solar Panels	Devices that generate low-voltage electricity using the photovoltaic effect
Racking	Metal frames to which solar panels and electrical cables are attached
Piles	Metal posts driven into the ground and to which racking is attached
Inverters	Metal cabinets with equipment that converts DC to AC, increases voltage and performs related functions
Collection Lines[1]	Electrical and communication cables either mounted on racking or buried
Substations	A facility that gathers electricity from the inverters, increases the voltage, and delivers it to the transmission

[1] The lines connecting the arrays to the point of interconnection are proposed to be located underground, and installed using horizontal directional boring in order to eliminate impact on wetlands and forest stands. These transmission lines will be contained within easements ranging from 25' to 40' in width. The ground surface will be maintained in its current use.

	system. The Project will have two substations, a project-owned "collection yard" and a utility-owned substation.
SCADA	"Supervisory Control and Data Acquisition" system that allows for remote monitoring and control of the solar panels, inverters, and other components
Roads	Unpaved roads, grassy driving aisles, and entrances to the Project from public roads
Pyranometers	Instruments that measure solar energy and weather conditions
Fencing	Metal fencing that meets applicable electric codes and insurance standards
Stormwater Controls	Basins, level spreaders and other structures that manage stormwater run-off

Each of these primary components is described in greater detail and with illustrative photographs in **Exhibit 3**.

The fenceline encompasses approximately 503 acres, and the Project Area encompasses approximately 637 acres, therefore 134 acres located within the Project Area, but outside of the fenceline will be left as open space. This translates to approximately 21%. Furthermore, within the fenceline, roughly 60-70% of the ground surface within each solar field will be open space. Relatively wide corridors between arrays are needed to prevent them from shading each other, and the open space between the arrays will be wider than the arrays themselves. Additionally, space is needed between and around the arrays for vehicles and workers to perform inspections, maintenance and repairs and to occasionally clean the solar panels of accumulated dust and dirt.[2]

The surface in each solar field—including almost all the area below the solar panels themselves—will be planted with a robust, low-growing seed mix, primarily native grasses and other low-maintenance varieties. This ground cover will be maintained with regular mowing and supplemented with approved herbicides. The vegetative cover will absorb precipitation, provide wildlife habitat, and improve water quality by filtering stormwater and reducing the use of farm-related pesticides and herbicides. Because it will always remain in place, the ground cover also will reduce erosion, run-off, and nutrient

[2] This "soiling" of solar panels reduces the amount of energy they produce. Typical rainfall in the County should be sufficient to clean the solar panels, but occasional cleaning with water may occur.

loss in a manner consistent with the Virginia DEQ Erosion and Sediment Control Handbook.

B. Project Location and Setbacks

The Project Area (not including buried collection lines and connecting roads) is comprised of approximately 637 acres of private land, consisting primarily of small- to medium-sized farm fields about 2 miles northwest of Windsor, surrounded by areas of relatively low population density. The predominate land use in the Project Area is agricultural with some land in silvicultural use. Solar panels generally avoid water features including streams, wetlands and floodplains, and the Project Area readily accommodates the Project because it contains sufficient dry and relatively level upland areas.

A key reason for the Project's location and size is its proximity to a transmission line. In the vicinity of the Project, a transmission line travels parallel to and approximately ½ mile south of Route 460. Studies conducted by Dominion and the operator of the multi-state electrical grid, PJM, show that the Project can deliver its power at this location in a cost-effective manner and no upgrades to the transmission line will be required.

The Property Limits consists of 20 parcels owned by 13 different families. A map of the participating and adjacent properties including a list of the corresponding parcel owners is provided in **Exhibit 4**. All of the participating parcels are located within the Rural Agricultural conservation ("RAC") District, in which solar projects are permitted with a CUP. The Project is in the vicinity of, but does not overlap with, the Windsor Development Services District ("DSDs"). Except for limited access road crossings, all above-ground infrastructure for the Project will avoid water-related features in the area, including wetlands and floodplains. The wetlands delineation has been completed for the entire Project Area, and the total projected impact within the Project Area is 0.07 acres. As shown in the Concept Plan, these impacts are limited to the construction of access roads in areas where wetlands impact is unavoidable. An overlay of the various environmental features in the vicinity of the Project is included in the Concept Plan for the Project, which is discussed further below, and is which is included as **Exhibit 5**.

The Project will incorporate substantial minimum setbacks from other uses and public roads. Specifically, the Project will adhere to the following setbacks:

1. **Setback from Route 460.** Applicant proposes a 200 foot setback from Route 460 in all places.

2. **Setback from Cut Thru Rd.** Applicant proposes a 200 foot setback from Cut Thru Rd in all places.

3. **Property Line Setback.** 75 feet from any property line of a parcel not participating in the Project, except 125 feet for adjacent residential parcels.

4. **Road Setback.** 75 feet from the edge of any public road right-of-way.

Setbacks will be measured from the closest above-ground structure, which is the fence.

C. Low Visibility

Due to the nature and location of the Project, implementation of solar development "best practices," and the County's Zoning Ordinance, the Project will have very low visual impact on surrounding residents and the travelling public.

First, the Project is located in an area of the County with relatively low population density. Although substantial when combined, the Project is divided into separate northern and southern units on each side of Route 460. Relatively little of the Project perimeter will actually be road frontage on Route 460. Further, each of the separate units will be comprised of separate, smaller solar fields, each of which will be "nested" within existing forested areas. As a result, although the Project is substantial in size as a whole, it will not be highly visible nor appear prominently to neighbors and travelers.

Second, as noted above, the Project will incorporate substantial setbacks between all above-ground components and neighboring land and roads. These robust setbacks will reduce the visual impact of Project infrastructure by moving it father away from neighbors, area residents, and visitors.

Third, the Project will incorporate robust vegetative buffering along its entire perimeter and will exceed the highly-detailed vegetative buffer requirements of the Zoning

Ordinance for frontage zones and adjoining residential parcels. The Applicant anticipates that most of the Project will be naturally obscured from view by existing vegetation and tree stands. In areas where existing vegetation is insufficient to meet the target landscaping points, the Applicant will plant vegetation to screen the Project from view. The proposed landscaping for the Project is depicted in the Preliminary Landscape Plan, which is included as **Exhibit 6**. The maximum height of all of the equipment within a given solar field (solar panels, inverters and pyranometers) will be 12 feet. The relatively low profile of the equipment combined with significant existing vegetation and planned vegetation means that the Project will be fully obscured from view.

An analysis of the visibility of the Project is provided in a Visual Impact Analysis, which is included as **Exhibit 7**. It demonstrates that the Project will only modestly affect the scenic quality of the rural landscape, mainly by adding vegetation where there traditionally has been none. This will be especially true for neighboring homes. There are relatively few homes along substantial portions of the Project's perimeter. Existing timber, vegetation on neighboring parcels, and other existing homes and structures will largely obscure views of the solar panels from most occupied locations.

D. Development Plans

As noted above, accompanying the Application are a series of maps (over-sized versions provided separately) designed to assist the County in the review of this Application (Exhibit 5, the Concept Plan). The Concept Plan depicts the parcels on which the Project will be constructed, the areas within these parcels that will host the solar fields, wildlife corridors, probable locations of entrances from public roads, the approximate routes of the buried collection lines, and location of the collection yard and utility-owned substation. These features are shown against a background of the public roads and neighboring parcels in the vicinity of the Project. The Concept Plan also includes indicative locations for solar panel arrays and indicative fence lines inside which the panels, inverters, and other surface equipment will be located.[3] Note that the three-rail

[3] The locations of panels and fences in the Concept Plan are for illustrative purposes only. Panel arrays and other surface equipment may be located anywhere within the Project Area.

fence adjacent to Windsor Boulevard on Parcel No. 45-01-061 will be retained. Note that the Project Area (the area within the "Property Limits") shown on the Concept Plan encompasses approximately 637 acres, whereas the indicative fence line (the area likely to be encompassed within the eventual Site Plan) encompasses considerably less: approximately 503 acres.

The Concept Plan shows the location and acreage of forest cover within the Project Area. A total of 22 acres of non-commercial timber will be impacted, which represents 3% of the Project Area. Additionally, 110 acres of forest historically used for commercial timber would be cut prior to construction, which represents an additional 17% of the Project Area.

All of these features in the Concept Plan plus considerable additional detail will be included in the Site Plan that will be submitted for review and approval prior to construction by the Zoning Administrator ("Site Plan"). The Site Plan will depict the various components of the Project within the solar fields, including the arrays, inverters, roads, and pyranometers. The precise number and location of these components will be based on final engineering and design using the model of each type of component selected. In contrast to the Site Plan, the Concept Plan shows for purposes of the CUP the "buildable area" that will contain all above-ground equipment and, therefore, shows the Project's "maximum extent" relative to the public. The only features of the Project outside this buildable area will be the driveways from the public roads to the gates, access roads connecting panel array areas, buried collection lines, and vegetative buffering.

The Application also includes several additional plans reflecting studies and surveys for the Project required by the Zoning Ordinance. These plans are a Transportation Plan (**Exhibit 8**), a Proposed Access/Haul Routes figure (**Exhibit 9**), an Environmental Resource Impact Analysis (**Exhibit 10**), a Phase 1 Environmental Site Assessment (**Exhibit 11**), a Phase 1A Historical and Cultural Resource Impact Analysis (**Exhibit 12**), a Phase 1 Architectural Resource Survey (**Exhibit 13**), a Phase 1 Archaeological Resource Summary of Findings (**Exhibit 14**), the Interconnection Application (**Exhibit 18**), and the Preliminary Jurisdictional Determination of wetlands issued by the Army Corps of Engineers (**Exhibit 19**).

III. Decommissioning

At the end of the Project's useful life, with the exception of the utility-owned substation, the equipment can be removed, and the land can be returned to its condition prior to construction. If desired by the landowner at that time, the land can be return to productive agricultural use following decommissioning. This is possible because the Project will have a minimal impact on the land. The piles are simple galvanized steel posts driven into the ground (typically to a depth of about 6-8 feet), which are easily removed. The inverters and pyranometers are installed on gravel pads, metal skids, or small concrete foundations. Although portions of the utility-owed substation and collection yard will be installed on poured concrete, they will cover only a small area. Roads will be constructed of aggregate material or covered in grass, not paved.

As noted by a N.C. State University study, "[d]ecommissioning is basically the construction process in reverse: it involves removal of the solar panels, break-up of support pads, removal of access roads, replacement of any displaced spoil, and revegetation."[4] The study recognizes that farm fields hosting solar panels essentially preserve farmland, stating "(m)odern solar facilities may be considered a temporary, albeit long-term, use of the land, in the sense that the systems can be readily removed from the site at the end of their productive life.[5]

The Zoning Ordinance contains comprehensive provisions requiring and governing the decommissioning of the Project at the end of the useful life of the Project (expected to be 40 years). These provisions and Va. Code § 15.2-2241.2 require a decommissioning agreement, and financial surety to guarantee that decommissioning will occur, to be in place prior to the start of construction. The agreement must provide for an estimate the cost of decommissioning by a professional engineer. To ensure decommissioning is funded in the unlikely event that the owner/operator does not meet its obligations, the agreement must be backed by financial surety.

A draft plan for decommissioning the Project consistent with the above requirements is included in Exhibit 15 ("Preliminary Decommissioning Plan"). It outlines

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[4] N.C. Clean Energy Technology Center, N.C. State University "Balancing Agricultural Productivity with Ground-Based Solar Photovoltaic (PV) Development" (August 2017), p. 4.

[5] Id.

the responsible parties, methodologies, regulatory framework, and financial assurance for decommissioning the Project and restoring the area to substantially its pre-construction condition. The Preliminary Decommissioning Plan provides for the safe removal and sale, re-deployment, recycling, or proper disposal of all components of the Project, including components containing rare or valuable materials.[6] Restoration will include decompaction of soil, and seeding with an appropriate, low-growing vegetative cover to stabilize the soil and increase its fertility. The final Decommissioning Plan with detailed procedures, timelines, and projected costs will be submitted, along with the decommissioning agreement, for review and approval by the Zoning Administrator prior to construction.

IV. Project Benefits

A. Minimal Use of County Services

Many types of new development, such residential subdivisions or road-side strips of commercial establishments, bring economic and fiscal benefits but also can stress local services and resources, and therefore fiscal resources. A uniquely positive feature of the Project relative to most other kinds of development is that it will require no taxpayer-supported services. The Project will not use any public water, require any extension of sewer, or upon completion of construction activities, add to the daily traffic load. The only County-supplied services needed are coordination with fire and rescue personnel to ensure the proper response in the unlikely event of an emergency.

[6] The Preliminary Decommissioning Plan prioritizes reuse and recycling over disposal. Reuse may be an option because solar panels typically are warranted to produce about 80% of their original power after 25 years. Recycling also is an option because most of the materials making up a solar project are recyclable; solar panels themselves are comprised mostly of commonly-recycled materials such as glass and aluminum. Although there has been little recycling to date in the U.S. due to the relative youth of the industry, the Solar Energy Industry Association launched a program in 2016 to develop a national recycling program with the ultimate goal of making the entire U.S. solar industry landfill-free. Even if the solar panels are not fully recyclable in 40 years, it is highly unlikely that they would present any disposal concerns because the vast majority of models now qualify as non-hazardous waste eligible for disposal in municipal landfills.

B. New County Revenue

The Project will represent a total investment of approximately $75-$85 million and will make significant revenue contributions to the County over its 40-year life: a minimum of $6.1 million from the taxation of equipment, and this revenue will likely be significantly higher due to the potential for a solar siting agreement to be agreed upon between the County and the Project. The fiscal benefits to the County will be 25 to 50 times more than the approximately $262,900 in taxes that are expected to be paid for the unimproved properties over the same 40-year period.[7]

To determine the economic and fiscal benefits that the County and its taxpayers will receive from this investment, the Applicant commissioned a study from Virginia-based Mangum Economics.[8] A copy of Mangum's report is attached as **Exhibit 16**. The Mangum study found that, in addition to the County revenue, the Project will result in the creation of approximately 67 jobs from the one-time "pulse" of economic activity during construction of the Project and 2-3 permanent jobs during the operations phase of the Project.

The Project also offers a unique opportunity for participating families to diversify their income by securing a robust and stable long-term source of revenue from a portion of their land. The long-term operating costs of solar facilities can be estimated with confidence because the amount of solar energy that can be produced by a particular area is a known amount (both now and in the future), and because there is no fuel price volatility (the only "fuel" is the sun). This predictability enables participating landowners to be paid fixed amounts over decades. In contrast to farm and timber income, which can variable significantly based on weather, commodity prices and tariffs, this certainty of income allows participating families to manage their land and revenue-producing activities over a generation.

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[7] These figures are conservative since they do not include additional, voluntary payments that Applicant could be in a position to make to the County under a "solar siting agreement" authorized under recent state legislation.

[8] Mangum has decades of experience assessing the economic consequences of proposed regulations and government policies, economic impact assessment, workforce issues and economic development. The firm's principal serves on the Governor's and General Assembly's Joint Advisory Board of Economists and is past president of the Virginia Association of Economists.

V. Other Regulations and Permits

A. Site Plan

After the CUP process and after final design and engineering is complete, but before construction begins, Applicant will submit to the Zoning Administrator for review and approval a Site Plan pursuant to Zoning Ordinance. The Site Plan submitted by Applicant will build on the Concept Plan, incorporating all the requirements of the Zoning Ordinance, and meeting all the usual specifications such plans.

B. Erosion Control and Stormwater Management

The Project will submit for approval the final design for Erosion and Sediment Control to the County. The plan will conform to the Virginia Erosion and Sedimentation Control Regulations and the Virginia Erosion and Sedimentation Control Handbook (3rd Ed. 1992). Stormwater Management design will be approved by the County, and the approved design and plan will be reflected in Site Plan. Construction will start only after the posting of surety to guarantee performance of the required control measures and a land-disturbing permit has been issued.

For permanent storm-water controls during operations of the Project, Applicant also will obtain, prior to construction, a Virginia Stormwater Management Program Permit from the County. This permit, which typically takes solar facilities the size of the Project 8 to 10 months to obtain, will be based on near-final engineering and design and involves detailed computer modeling of potential future stormwater flows. The permit will ensure that the Project is designed to protect area water resources from stormwater.

Although the Project will entail substantial ground disturbance, erosion management during construction will be facilitated by several factors. First, solar arrays do not require perfectly flat land; the rows of solar panels can be constructed so as to conform to modest slopes (5%-10%), thereby reducing the scope of earth-moving activities. Second, the vast majority of the racking used to support the panels will be secured to posts that are merely driven down through the existing surface, without excavation. Also, Applicant will not remove any topsoil from the Project Area, but will use it to expeditiously establish ground cover. In order to comply with soil testing requirements of Sec. 5-5003.M.4.f. of the Zoning Ordinance, site plan submission will be accompanied

by a proposed soil sampling protocol that identifies, based on the selection of model of solar panels for the project, the proposed contaminants and test methods, as well as proposed procedures for qualification of personnel, sampling frequency, handling of samples, and sharing of test results with the county.

Applicant is aware of the recent memorandum issued by DEQ classifying solar facilities as impervious surface for stormwater purposes, and the Project will comply with all requirements, county regulations, state law, and DEQ regulations applicable to the Project at the time that the application for a stormwater management permit for the Project is submitted.

C. State Solar Approval

In addition to the above, the Project will require approval by DEQ under a regulatory program the General Assembly has put in place for solar generation facilities called the "Permit By Rule" or PBR program. Given that local land use approval is one of the required elements of a PBR application, the Applicant has not yet submitted the application. The requirements of the PBR process are extensive and include public comment periods. Only if all of these requirements of the program are satisfied will the project obtain the necessary clearance to proceed. The Virginia Department of Conservation and Resources (VDCR) is the state agency charged with providing feedback during the Permit by Rule process regarding the environmental attributes of the project.

D. Wetlands.

If impacts to USACE jurisdictional wetlands and streams are unavoidable, the Project will obtain the appropriate permits for any unavoidable impacts including authorization via USACE's Nationwide Permits 51 and 58. Timmons Group has completed a field wetland delineation, and the U.S. Army Corps of Engineers has reviewed the delineation and provided a Preliminary Jurisdictional Determination. The Project will continue with this coordination as design plans become finalized in order to obtain these appropriate authorizations.

VI. Consideration of CUP Criteria

Applicant believes that the Project favorably compares to the County's criteria for granting a CUP. The Zoning Ordinance provides that a CUP shall be approved only upon finding that the proposed use conforms to the following criteria:

- Not detrimental or dangerous to the public health, safety and general welfare
- Not injurious to the use and enjoyment of other property in the immediate vicinity nor substantially impair use of other property
- Adequate utilities, water, sewer or septic system, access roads, storm drainage and/or other necessary public facilities and improvements are provided
- Adequate measures will be taken to provide ingress/egress to minimize traffic congestion
- Not contrary to the goals and objectives of the Comprehensive Plan
- Conforms to zoning district regulations and special requirements for the use
- Will not result in a multiplicity or saturation of similar uses in the same general neighborhood

Each of these criteria is discussed below in relation to the Project.

A. Public Health, Safety and General welfare

The Project will not adversely affect the public health, safety, and general welfare of the County.

The only aspect of construction that needs to be managed for public safety is construction traffic. Construction is expected to take 9-12 months and may be inconvenient at times to area residents, but is expected to have only very modest impacts on traffic and roads in the community. Although there will be a number of component-related deliveries, almost all of these will be by conventional commercial trucks, not over-sized vehicles. There will be a substantial increase in worker-related traffic during the construction period, but not so much as to cause significant adverse effects in the area as a whole. Construction traffic will be manageable and can readily be addressed by

Applicant in cooperation with VDOT and the County. In order to comply with road repair and maintenance requirements of Sec. 5-5003.M.4.g.ii of the Zoning Ordinance, prior to the start of construction Applicant will take video of key road segments near the project to be used for deliveries so as to create a firm baseline of beginning conditions, and then at least monthly during construction and with VDOT upon completion of construction, inspect those road segments for any project-related damage.

With regard to operations, solar energy is based on well-established technology developed in the 1950s and is very safe. Solar panels are made mostly of metal, glass, and plastic. Within these common materials, a thin layer of solid-state semi-conducting material is encapsulated within a water-tight envelope (to avoid air moisture from adversely affecting the function and warranty of the solar panels). Even if a solar panel is broken open, and the semi-conducting material exposed, which is very difficult to do, there are no liquids that can spill. A recent study from N.C. State University concluded that "[p]hotovoltaic (PV) technologies and solar inverters are not known to pose any significant health dangers to their neighbors."[9] Virginia-based Southern Environmental Law Center has reported that "[t]here are no confirmed public health impacts from solar panels at levels encountered by the public."[10]

B. Use and Enjoyment of Other Property in Immediate Vicinity

The Project will include the necessary safeguards to protect the use and enjoyment of property in its immediate vicinity. As noted above, the Project will generate electricity with virtually no light, noise, odor, dust or traffic, and it will not produce any air pollution, water pollution or waste. Inverters will be placed at sufficient distances from property lines in order to comply with the noise restrictions of Section 5-5003.M.4.c. of the Zoning Ordinance. Inverters typically have sound power levels of 80 to 90 dBA near the source, and rapidly dissipate with distance. Generally, sound power levels declines 6 dBA for every doubling of the distance from the source. So, for instance, if an inverter produces

[9] N.C. Clean Energy Technology Center, N.C. State University "Health and Safety Impacts of Solar Photovoltaics" (May 2017), p. 3.

[10] Southern Environmental Law Center, "The Environmental Review of Solar Farms in the Southwest U.S." (March 2017), p. 6.

sound of 90 dBA at a distance of 3 feet, then the sound will decline with distance as follows: 84 dBA at 6 feet, 78 dBA at 12 feet, 72 dBA at 24 feet, 66 dBA at 48 feet, 60 dBA at 96 feet, and so on. To further protect neighbors and minimize any adverse visual impacts, the Project will incorporate perimeter-wide setbacks and rigorous vegetative buffering.

C. Public Facilities and Improvements

Adequate utilities will be provided for the Project with no burden on the County. With the exception of obtaining distribution-level electric power from the existing electric utility for the SCADA facility, the Project will require no utilities. It will not require County-supplied water or sewer.

D. Ingress and Egress

Adequate road entrances and off-street parking will be provided for the Project with no burden on the County. All parking will be provided for within the footprint of the Project itself and, during operations, needed parking will be almost negligible as the Project will only require infrequent service and maintenance visits.

E. Comprehensive Plan

In addition to this Application, the Applicant is requesting a determination from the Planning Commission that the Project is "substantially in accord" ("SIA") with the County's Comprehensive Plan under Va. Code § 15.2-2232 ("Section 2232"). Because of the similarity between the standard provided in Section 2232 and the Comprehensive Plan element here, the Applicant is addressing the Comprehensive Plan solely in the SIA request, which is incorporated by reference in this Application.

F. Zoning Regulations and Use Requirements

As discussed above, the Project will fully comply with all applicable provisions of the County's Zoning Ordinance and solar-specific use requirements.

G. Multiplicity of Similar Uses in Same General Neighborhood

The southern unit of the Project will be near another solar facility that received a CUP from the County, and that is planned to be located south of Blackwater Road. No part of the Project, however, will front Blackwater Road. Also, due to intervening forests that will not be cut, the two projects will not be visible from each other. For this reason, the general neighborhood will not experience a multiplicity or saturation of solar energy uses.

H. Applicant's Proposed CUP Conditions

Applicant proposes conditions for consideration by Planning Staff, the Planning Commission, and the Board of Supervisors. The proposed conditions are included in Exhibit 17.

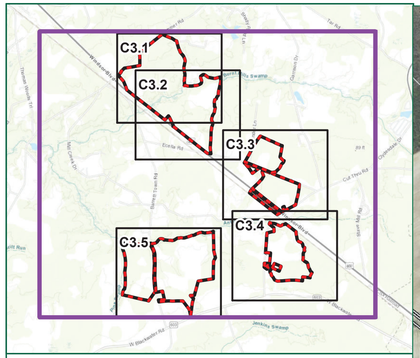
I. Consideration of General Design Standards

Applicant has considered how the general design standards required by Sec. 7-1004.A.1.h. through Sec.7-1004.A.1.o. of the Zoning Ordinance, as applicable, will be addressed. Please find this information below:

Standard	**Compliance plan**
Sec.7-1004.A.1.h. Public water and sewer facilities	Not applicable. The Project will not use public water/sewer facilities.
Sec.7-1004.A.1.i. Emergency vehicle access	As detailed in the proposed CUP conditions, emergency access will be managed by keycode or other remote access technology with specific entry credentials issued to county personnel.
Sec.7-1004.A.1.j Schools	Not applicable. There is no anticipated impact on schools and no anticipated need for new school facilities
Sec.7-1004.A.1.k. Recreation	Not applicable. There is no anticipated impact on recreation and no anticipated need for new recreational facilities
Sec.7-1004.A.1.l. Essential services	In the unlikely event of an emergency, fire & rescue may be called.
Sec.7-1004.A.1.m. Impact on adjoining land uses	Perimeter landscaping, upon maturity, will obscure the Project from view, and the required Erosion and Sediment Control approvals will ensure that the Project

	is designed to protect area water resources from stormwater.
Sec.7-1004.A.1.n. Plans for the surrounding area	The Project will be in harmony with the plans for the surrounding area, as detailed in Exhibit 2.
Sec.7-1004.A.1.o. Relation to pedestrian pathways and bikeways	Not applicable. There are no existing or proposed pedestrian pathways or bikeways within the immediate vicinity of the Project.

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Legend

- Project Area - 637.2 Acres
- Property Limits
- Property Setback - 75', 125', 200' (see notes for details)

Proposed Features (Conceptual)

- Project Entrance
- Inverters
- Internal Road
- Easement Routes
- Setback Markers
- Wildlife Corridor
- Wetland or Stream Crossing
- Fenced Area - 503.4 Acres
- Panels
- Collection Yard
- Dominion Substation

Existing Features

- Delineated Stream
- Delineated Wetland
- Antioch Swamp Stream Conservation Unit
- FEMA Floodplain
- NRHP Eligible Architectural Resource
- Virginia Building Footprints
- Isle of Wight Tax Parcels

Vegetative Buffer

- Proposed Vegetation
- Existing Vegetation to be Retained

Sheet C3.1
Sheet C3.2
Sheet C3.3
Sheet C3.4
Sheet C3.5
Yellow Hammer Rd, Route 645
Tar Rd, Route 645
Garrison Dr, Route 646
Ecella Rd, Route 639
Mill Creek Trl, Route 1830
Barrett Town Rd, Route 641
Mill Creek Dr, Route 638
Winston Dr, Route 639
Cut Thru Rd, Route 638
Sharp Hill Rd, Route 646
Antioch Rd, Route 657
W Blackwater Rd, Route 603
Knoxville Rd, Route 609
CSX Railroad
460
200'

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CARVER SOLAR
ISLE OF WIGHT COUNTY, VIRGINIA

DATE: 08/30/2022
PROJECT NUMBER: 38786.012
PROJECT NAME: CARVER SOLAR
DESIGNED BY / DRAWN BY: L. WHEELER

NOTES
Project Limits are approximate.
Site layout is conceptual. Not for construction.
Wetlands and streams have been delineated by Timmons Group and are pending USACE confirmation.
Setbacks are 75' from all property boundaries, 125' from residential parcels, and 200' from Route 460.
Parcel data from Isle of Wight County.
The existing fence along Prettow's 460 frontage will be retained.
Aerial imagery from VGIN.

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REVISIONS

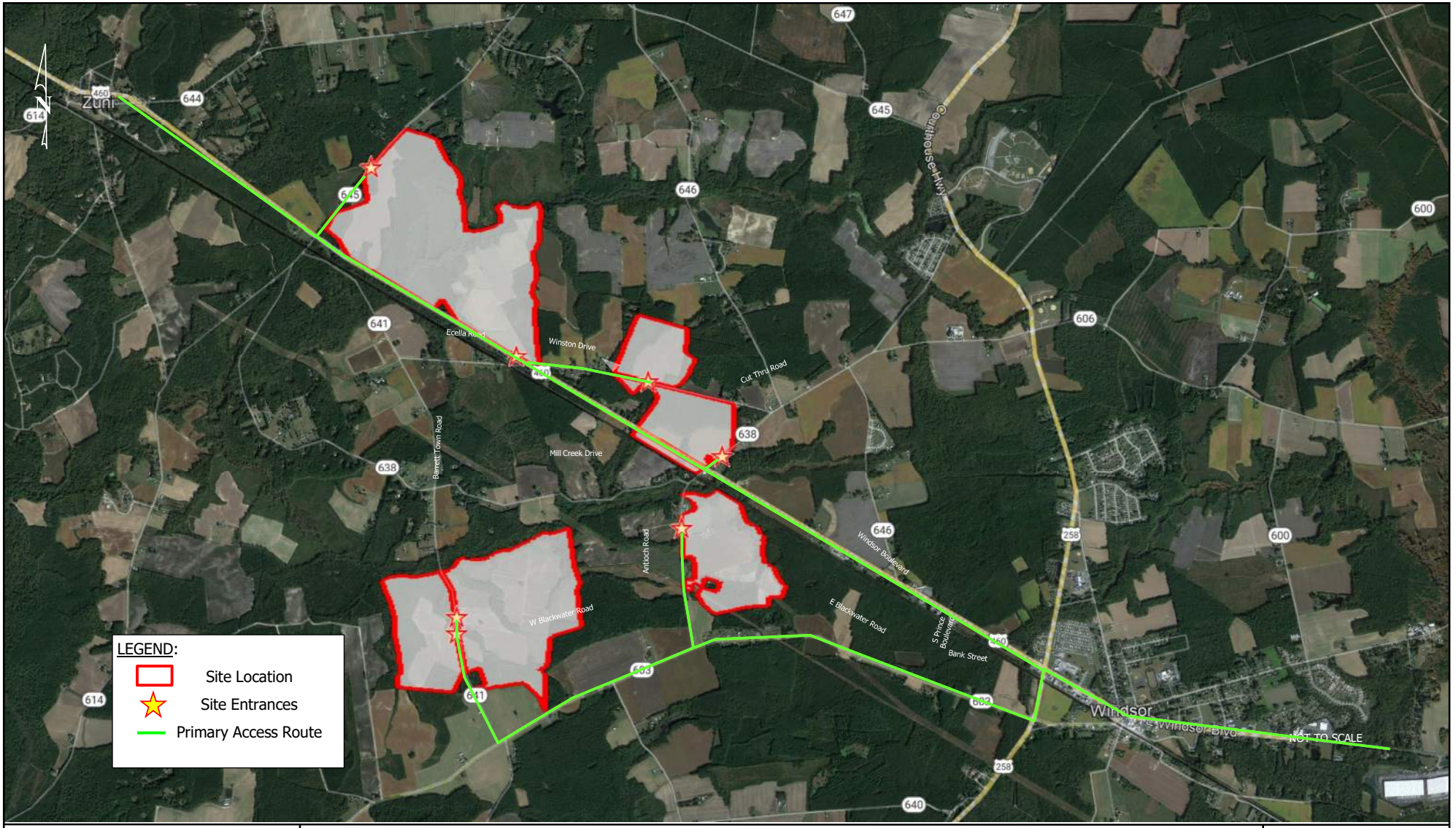
#	MM/DD/YY	DESCRIPTION

DRAWING DESCRIPTION: CONCEPT PLAN

SCALE (FEET)
0 800 1,600
PLANS PRINTED AS 11X17 ARE HALF SCALE

SCALE	SHEET NUMBER
H:1 " = 800 '	C3.0

Y:\851\38786.012-Carver_Solar\GIS\CUP\38786.012-CUP Site Plan.mxd



TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

Proposed Access/Haul Routes
Carver Solar
Isle of Wight County, Virginia

Figure
1

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

1001 Boulders Parkway
Suite 300
Richmond, VA 23225

P 804.200.6500
F 804.560.1016
www.timmons.com

MEMORANDUM

TO: Isle of Wight County Planning and Zoning Department

FROM: Timmons Group on behalf of Carver Solar, LLC

DATE: August 30, 2022

RE: Carver Solar Environmental Resource Impact Analysis

Timmons Group, on behalf of Carver Solar, has updated the limited environmental review of resources that may be present within a one-mile radius of the proposed project location. This environmental review includes National and State forests, National and State parks, wildlife management areas, conservation easements, recreational areas, and cultural and historic resources.

Federal, State, and Local Conservation and Recreation Lands

Carver Solar does not intersect any federal, state, or local conservation or recreational lands, and there are no such resources within one mile of the project limits. The nearest managed lands are over one mile away: Heritage Park is a local park approximately 1.2 miles to the east, and Antioch Pines State Natural Area Preserve is approximately 1.3 miles to the west.

Wetlands and Streams

Wetlands and streams onsite have been delineated by Timmons Group. A Preliminary Jurisdictional Determination has been issued by the U.S. Army Corps of Engineers confirming the jurisdictional waters/wetland limits. If wetland or stream impacts are unavoidable, the Applicant will obtain the appropriate USACE permit for any unavoidable impacts to USACE jurisdictional wetlands and streams.

Wetlands and streams form a natural wildlife corridor, and as they will generally not be impacted by the project, will remain as interior corridors for wildlife utilization. Wetlands and streams are generally outside the fenced area so free passage of wildlife will be allowed for the duration of the project. The Virginia Department of Wildlife Resources advises that interior passages through solar projects helps reduce potential impacts to wildlife, to which this project will adhere.

Threatened and Endangered Species

Timmons Group has conducted a threatened and endangered (T&E) species review of the Carver Solar project. The following databases were reviewed for the potential presence of T&E species:

- Virginia Department of Conservation and Recreation (VDCR) – Natural Heritage Review Service
- Virginia Department of Wildlife Resources (VDWR) – Virginia Fish and Wildlife Information Service (VaFWIS)
- US Fish and Wildlife Service (USFWS) – Information for Planning and Consultation (IPaC)
    - Official Species List
    - Consistency Letter

Based on the queried databases, there is the potential for four T&E species to occur near the Project.

- Northern Long-eared Bat *Myotis septentrionalis* Federal, State Threatened USFWS
- Tri-colored Bat *Perimyotis subflavus* State Endangered VDWR
- Eastern Big-eared Bat *Corynorhinus rafinesquii macrotis* State Endangered VDCR
- Monarch Butterfly *Danaus plexippus* Candidate Species USFWS

CHECK FOR SURVEY

There is limited potential habitat for bat species to exist on the Project, as the majority of the land is agricultural land and timber tracts previously harvested. Furthermore, there are no known hibernacula or roost trees for these species within the vicinity of the Project. A common strategy recommended by reviewing agencies to avoid potentially harmful impacts to bat species is implementation of a time of year restriction on tree clearing. Additionally, the Antioch Swamp Stream Conservation Unit (SCU) is located within the project site, and this SCU has a biodiversity significance ranking of B2, which represents a site of very high significance. To minimize adverse impacts to the aquatic ecosystem, VDCR recommends the implementation of and strict adherence to applicable state and local erosion and sediment control/stormwater management laws and regulations.

AVOID CLEARING?

During permitting efforts at the state level, the Applicant will coordinate with agencies to ensure the protection and avoidance of T&E species.

Cultural and Historical Resources

The Project is not expected to have any impacts to cultural and historical resources due to the amount of cultural work required at the state permitting level. In-depth cultural surveys conducted by qualified professionals will be submitted for approval and concurrence by the Virginia Department of Historic Resources (VDHR).

The Applicant has submitted Phase 1 Architectural and Phase 1 Archaeological survey reports separately, and these reports provide details regarding resources that are eligible or potentially eligible for listing on the National Register of Historic Places (NHRP).

Attachment

- T&E Species Database Reviews

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
Phone: (804) 693-6694 Fax: (804) 693-9032

In Reply Refer To:
Project Code: 2022-0053689
Project Name: Carver Solar

June 14, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Project Code in the header of this

letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
(804) 693-6694

Project Summary

Project Code: 2022-0053689
Event Code: None
Project Name: Carver Solar
Project Type: Power Gen - Solar
Project Description: Carver Solar is a proposed utility scale solar facility. The project limits is approximately 1,182 acres and the project area is approximately 670 acres; the project is in Isle of Wight County, Virginia. The proposed project involves the development of forested lands for the construction and operation of a solar site and associated facilities.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.85063405,-76.79984776037925,14z



Counties: Isle of Wight County, Virginia

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel *Falco sparverius paulus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Sep 1 to Jul 31

NAME	BREEDING SEASON
Eastern Whip-poor-will *Antrostomus vociferus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Kentucky Warbler *Oporornis formosus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
Prairie Warbler *Dendroica discolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee

was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

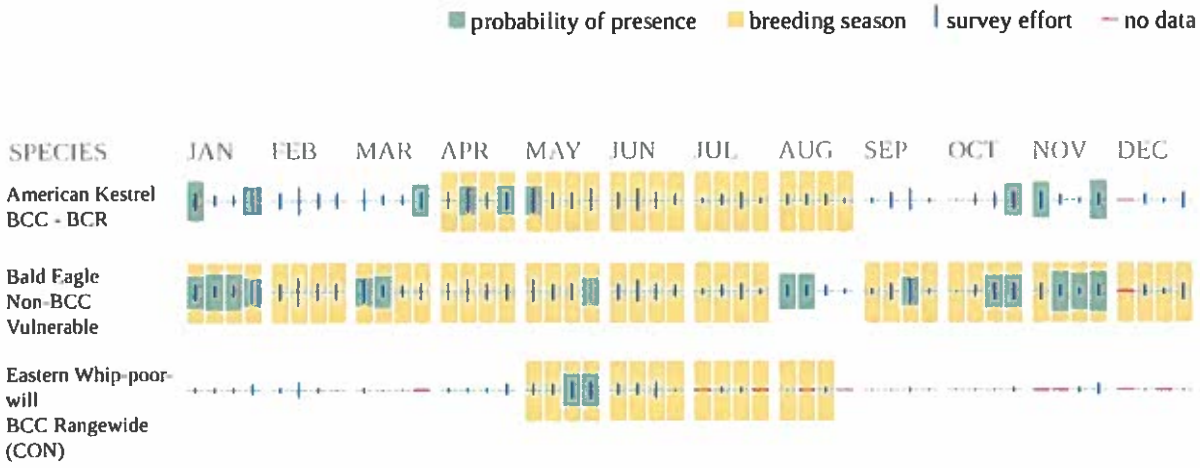
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

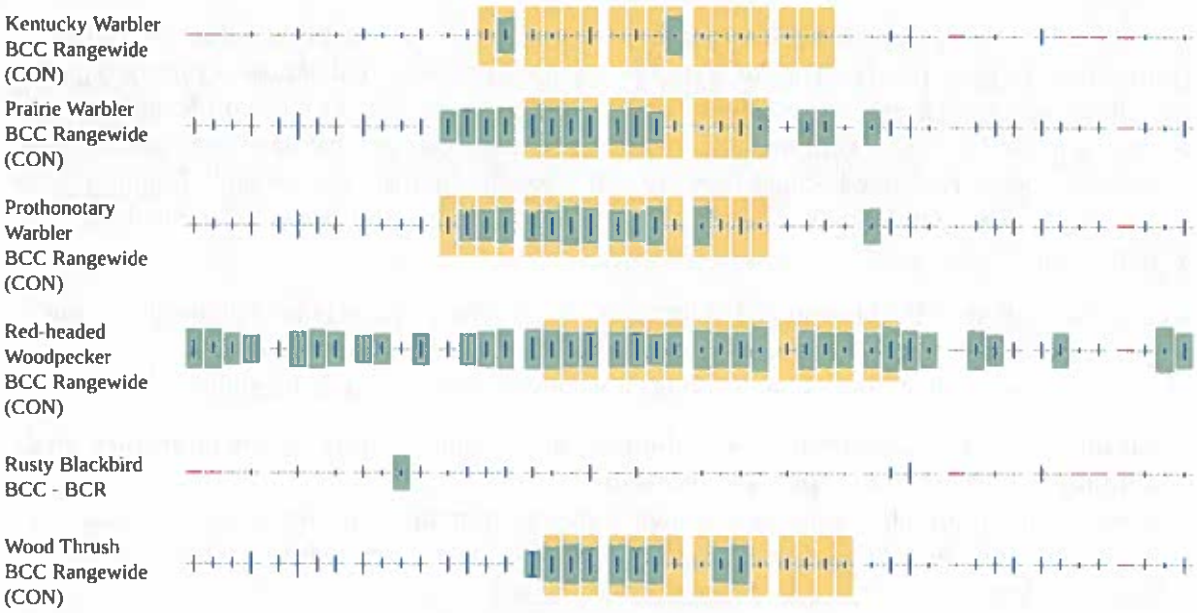
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

IPaC User Contact Information

Agency: Timmons Group
Name: Timmons Group
Address: 1001 Boulders Pkwy
City: Richmond
State: VA
Zip: 23225
Email 804@timmons.com
Phone: 8042006500

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
Phone: (804) 693-6694 Fax: (804) 693-9032

In Reply Refer To:
Project code: 2022-0053689
Project Name: Carver Solar

June 14, 2022

Subject: Consistency letter for the 'Carver Solar' project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Dear Timmons Group:

The U.S. Fish and Wildlife Service (Service) received on June 14, 2022 your effects determination for the 'Carver Solar' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause "take"[1] of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Please report to our office any changes to the information about the Action that you entered into IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation.

If your Action proceeds as described and no additional information about the Action's effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the northern long-eared bat.

The IPaC-assisted determination for the northern long-eared bat **does not** apply to the following ESA-protected species that also may occur in your Action area:

- Monarch Butterfly *Danaus plexippus* Candidate

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above.

---

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

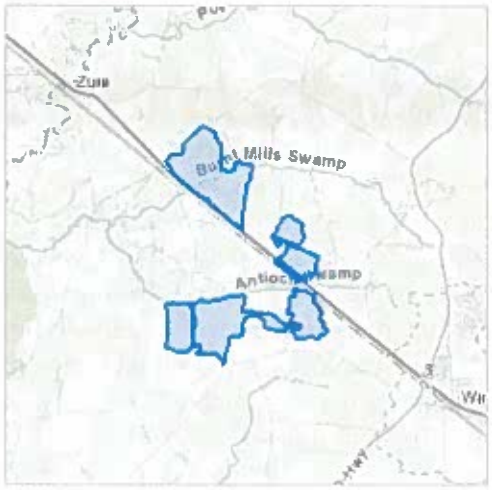
Carver Solar

2. Description

The following description was provided for the project 'Carver Solar':

> Carver Solar is a proposed utility scale solar facility. The project limits is approximately 1,182 acres and the project area is approximately 670 acres; the project is in Isle of Wight County, Virginia. The proposed project involves the development of forested lands for the construction and operation of a solar site and associated facilities.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.85063405,-76.79984776037925,14z



Determination Key Result

This non-Federal Action may affect the northern long-eared bat; however, any take of this species that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o).

Determination Key Description: Northern Long-eared Bat 4(d) Rule
This key was last updated in IPaC on **May 15, 2017**. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for non-Federal actions is to assist determinations as to whether proposed actions are excepted from take prohibitions under the northern long-eared bat 4(d) rule.

If a non-Federal action may cause prohibited take of northern long-eared bats or other ESA-listed animal species, we recommend that you coordinate with the Service.

Determination Key Result

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   No

2. Will your activity purposefully **Take** northern long-eared bats?

   No

3. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?

   Automatically answered
   No

4. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

   Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/media/nleb-roost-tree-and-hibernacula-state-specific-data-links-0.

   Yes

5. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

   No

6. Will the action involve Tree Removal?

   Yes

7. Will the action only remove hazardous trees for the protection of human life or property?

   No

8. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

   No

9. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

   No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

1. Estimated total acres of forest conversion:

154

2. If known, estimated acres of forest conversion from April 1 to October 31

154

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

0

IPaC User Contact Information

Agency: Timmons Group
Name: Timmons Group
Address: 1001 Boulders Pkwy
City: Richmond
State: VA
Zip: 23225
Email 804@timmons.com
Phone: 8042006500

Frank N. Stovall
Deputy Director for Operations

Darryl Glover
Deputy Director for Dam Safety, Floodplain Management and Soil and Water Conservation

Laura Ellis
Interim Deputy Director for Administration and Finance

COMMONWEALTH of VIRGINIA

DEPARTMENT OF CONSERVATION AND RECREATION

March 18, 2022

Lauren Wheeler
Timmons Group
1001 Boulders Parkway
Virginia Beach, VA 23462

Re: 38786.012, Carver Solar

Dear Ms. Wheeler:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

According to the information currently in our files, the Antioch Swamp Stream Conservation Unit (SCU) is located within the project site. SCUs identify stream reaches that contain aquatic natural heritage resources, including 2 miles upstream and 1 mile downstream of documented occurrences, and all tributaries within this reach. SCUs are given a biodiversity significance ranking based on the rarity, quality, and number of element occurrences they contain; on a scale of 1-5, 1 being most significant. The Antioch Swamp SCU has been given a biodiversity significance ranking of B2, which represents a site of very high significance. The natural heritage resources of concern associated with this SCU are:

Epitheca spinosa	Robust baskettail	G4/S3/NL/NL
Isoetes hyemalis	Winter quillwort	G2G3/S2/SOC/NL
Lampsilis radiata	Eastern lampmussel	G5/S2S3/NL/NL
Mitreola petiolata	Lax hornpod	G5/S1/NL/NL
Lipocarpha micrantha	Small-flowered halfchaff sedge	G5/S2/NL/NL
Aquatic Natural Community (SC-Blackwater First Order Stream)		G2G3/S2S3/NL/NL
Aquatic Natural Community (SC-Blackwater Second Order Stream)		G2?/S2?/NL/NL

To minimize adverse impacts to the aquatic ecosystem as a result of the proposed activities, DCR recommends the implementation of and strict adherence to applicable state and local erosion and sediment control/storm water management laws and regulations.

Furthermore, according to predicted suitable habitat modeling, there is potential for Eastern big-eared bat (*Corynorhinus rafinesquii macrotis*, G3G4T3/S2/NL/LE) to occur in the project area if suitable habitat exists on site. The Eastern big-eared bat is named for its enormous ears twice the length of its head, is extremely rare in Virginia and is currently known only from the southeastern portion of the state. Although widespread throughout the southeast, they are never found in large numbers. These bats roost singly or in small groups in hollow trees or abandoned buildings. They forage only after dark primarily in mature forests of both upland and lowland areas

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

New and updated information is continually added to Biotics. Please re-submit a completed order form and project map for an update on this natural heritage information if the scope of the project changes and/or six months (September 18, 2022) has passed before it is utilized.

A fee of $120.00 has been assessed for the service of providing this information. Please find attached an invoice for that amount. Please return one copy of the invoice along with your remittance made payable to the Treasurer of Virginia, DCR Finance, 600 East Main Street, 24th Floor, Richmond, VA 23219. Payment is due within thirty days of the invoice date. Please note late payment may result in the suspension of project review service for future projects.

The VDWR maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters that may contain information not documented in this letter. Their database may be accessed from http://vafwis.org/fwis/ or contact Amy Martin at (804-367-2211) or amy.martin@dwr.virginia.gov.

Should you have any questions or concerns, please contact me at 804-225-2429. Thank you for the opportunity to comment on this project.

Sincerely,

Tyler Meader

Tyler Meader
Natural Heritage Locality Liaison

CC: Susan Tripp, DEQ
Amy Martin, VDWR
Randy Keaton, Isle of Wight County Administrator

VaFWIS - Department of Game and Inland Fisheries

36.83744 -76.79231
is the Search Point
Submit Cancel

Search Point
- **Change** to "clicked" map point
- **Fixed** at 36.83744 -76.79231

Show Position Rings
- Yes
- No

1 mile and 1/4 mile at the **Search Point**

Show Search Area
- Yes
- No

2 Search distance miles buffer

Search Point is at map center

Base Map Choices
BW Aerial Photography

Map Overlay Choices
Current List: Anadromous, TEWaters, BAEANests, BECAR, Trout, TierII, Habitat, Search

Map Overlay Legend

back
Map Click Pan
Map Scale In Zoom Out
Refresh Browser Page
Screen Size Small Size Big
Help



N
2.5 0 2.5 5 7.5 10 Kilometers
2 0 2 4 6 8 Miles

Point of Search 36.83744 -76.79231
Map Location 36.83744 -76.79231

Select **Coordinate System:**
- Degrees,Minutes,Seconds Latitude - Longitude
- Decimal Degrees Latitude - Longitude
- Meters UTM NAD83 East North Zone
- Meters UTM NAD27 East North Zone

Base Map source: Black & White USGS Aerial Photography (see Microsoft terraserver-usa.com for details)

Map projection is UTM Zone 18 NAD 1983 with left 327383 and top 4091139. Pixel size is 19. . Coordinates displayed are decimal Degrees North and West. Map is currently displayed as 800 columns by 800 rows for a total of 640000 pixles. The map display represents 25600 meters east to

T & E Waters
Federal

T & E Waters
Federal
State

Predicted Habitat WAP Tier I & II
Aquatic
Terrestrial

Trout Waters
Class I - IV
Class V - VI

Anadromous Fish Reach
Confirmed
Potential

Impediment

2 mile radius Search Area

Bald Eagle Concentration Areas and Roosts

Bald Eagle Nests

Data Observation Site

west by 25600 meters north to south for a total of 655.3 square kilometers. The map display represents 84003 feet east to west by 84003 feet north to south for a total of 253.1 square miles.

Topographic maps and Black and white aerial photography for year 1990+-
are from the United States Department of the Interior, United States Geological Survey.
Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.
Shaded topographic maps are from TOPO! ©2006 National Geographic
http://www.national.geographic.com/topo
All other map products are from the Commonwealth of Virginia Department of Game and Inland Fisheries.

map assembled 2022-03-23 14:00:59 (qa/qc March 21, 2016 12:20 - tn=1171622 dist=3218 l
)
$poi=36.8267700 -76.8079900

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VaFWIS Initial Project Assessment Report Compiled on 3/23/2022, 2:02:42 PM

Help

Known or likely to occur within a **2 mile buffer around polygon; center 36.8267700 -76.8079899** in **093 Isle of Wight County, 175 Southampton County, VA**

View Map of Site Location

541 Known or Likely Species ordered by Status Concern for Conservation (displaying first 37) (37 species with Status* or Tier I** or Tier II**)

BOVA Code	Status*	Tier**	Common Name	Scientific Name	Confirmed	Database(s)
040228	FESE	Ia	Woodpecker, red-cockaded	Picoides borealis		BOVA
010032	FESE	Ib	Sturgeon, Atlantic	Acipenser oxyrinchus		BOVA
010214	FESE	IIa	Logperch, Roanoke	Percina rex		BOVA
030071	FTST	Ia	Turtle, loggerhead sea	Caretta caretta		BOVA
040144	FTST	Ia	Knot, red	Calidris canutus rufa		BOVA
040110	FTSE	Ia	Rail, eastern black	Laterallus jamaicensis jamaicensis		BOVA
050022	FTST	Ia	Bat, northern long-eared	Myotis septentrionalis		BOVA
060029	FTST	IIa	Lance, yellow	Elliptio lanceolata		BOVA
010347	SE	Ia	Sunfish, blackbanded	Enneacanthus chaetodon		BOVA,Habitat
030064	SE	Ia	Turtle, eastern chicken	Deirochelys reticularia reticularia		BOVA
050020	SE	Ia	Bat, little brown	Myotis lucifugus		BOVA
050034	SE	Ia	Bat, Rafinesque's eastern big-eared	Corynorhinus rafinesquii macrotis		BOVA
050027	SE	Ia	Bat, tri-colored	Perimyotis subflavus	Yes	BOVA,SppObs
020052	SE	IIa	Salamander, eastern tiger	Ambystoma tigrinum		BOVA
030013	SE	IIa	Rattlesnake, canebrake	Crotalus horridus		Habitat
040096	ST	Ia	Falcon, peregrine	Falco peregrinus		BOVA
040293	ST	Ia	Shrike, loggerhead	Lanius ludovicianus		BOVA
040385	ST	Ia	Sparrow, Bachman's	Peucaea aestivalis		BOVA
020044	ST	IIa	Salamander, Mabee's	Ambystoma mabeei		BOVA,Habitat
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans		BOVA
030067	CC	IIa	Terrapin, northern diamond-backed	Malaclemys terrapin terrapin		BOVA,Habitat
030063	CC	IIIa	Turtle, spotted	Clemmys guttata		BOVA
030031	CC	IIIc	Kingsnake, scarlet	Lampropeltis elapsoides		BOVA
010174		Ia	Bass, Roanoke	Ambloplites cavifrons		BOVA
070131		Ic	Isopod, Phreatic	Caecidotea phreatica		BOVA

020063		IIa	Toad, oak	Anaxyrus quercicus		BOVA,Habitat
020002		IIa	Treefrog, barking	Hyla gratiosa		BOVA
040052		IIa	Duck, American black	Anas rubripes		BOVA
040033		IIa	Egret, snowy	Egretta thula		BOVA
040029		IIa	Heron, little blue	Egretta caerulea caerulea		BOVA
040036		IIa	Night-heron, yellow-crowned	Nyctanassa violacea violacea		BOVA
040181		IIa	Tern, common	Sterna hirundo		BOVA
040320		IIa	Warbler, cerulean	Setophaga cerulea		BOVA
040140		IIa	Woodcock, American	Scolopax minor		BOVA
060071		IIa	Lampmussel, yellow	Lampsilis cariosa		BOVA
040105		IIb	Rail, king	Rallus elegans		BOVA
040304		IIc	Warbler, Swainson's	Limnothlypis swainsonii		BOVA

To view **All 541 species** View 541

*FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed; FC=Federal Candidate; CC=Collection Concern

**I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier IV - Moderate Conservation Need
Virginia Widlife Action Plan Conservation Opportunity Ranking:
a - On the ground management strategies/actions exist and can be feasibly implemented.;
b - On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.;
c - No on the ground actions or research needs have been identified or all identified conservation opportunities have been exhausted.

Bat Colonies or Hibernacula: **Not Known**

Anadromous Fish Use Streams (1 records)

View Map of All Anadromous Fish Use Streams

Stream ID	Stream Name	Reach Status	Anadromous Fish Species			View Map
			Different Species	Highest TE*	Highest Tier**	
C106	Balckwater River 2	Confirmed	1			Yes

Impediments to Fish Passage (1 records)

View Map of All Fish Impediments

ID	Name	River	View Map
204	JENKINS DAM	JENKINS SWAMP	Yes

Colonial Water Bird Survey

N/A

Threatened and Endangered Waters

N/A

Managed Trout Streams

N/A

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests

N/A

Habitat Predicted for Aquatic WAP Tier I & II Species (5 Reaches)

View Map Combined Reaches from Below of Habitat Predicted for WAP Tier I & II Aquatic Species

Stream Name	Tier Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
Antioch Swamp (03010202)	SE	010347	SE	Ia	Sunfish, blackbanded	Enneacanthus chactodon	Yes
Britt Run (03010202)	SE	010347	SE	Ia	Sunfish, blackbanded	Enneacanthus chaetodon	Yes
Burnt Mills Swamp (03010202)	SE	010347	SE	Ia	Sunfish, blackbanded	Enneacanthus chaetodon	Yes
Pope Swamp (03010202)	SE	010347	SE	Ia	Sunfish, blackbanded	Enneacanthus chaetodon	Yes
tributary (03010202)	SE	010347	SE	Ia	Sunfish, blackbanded	Enncacanthus chaetodon	Yes
tributary (03010202)	SE	010347	SE	Ia	Sunfish, blackbanded	Enneacanthus chaetodon	Yes

Habitat Predicted for Terrestrial WAP Tier I & II Species (4 Species)

View Map of Combined Terrestrial Habitat Predicted for 4 WAP Tier I & II Species Listed Below

ordered by Status Concern for Conservation

BOVA Code	Status*	Tier**	Common Name	Scientific Name	View Map
030013	SE	IIa	Rattlesnake, canebrake	Crotalus horridus	Yes
020044	ST	IIa	Salamander, Mabee's	Ambystoma mabeei	Yes
030067	CC	IIa	Terrapin, northern diamond-backed	Malaclemys terrapin terrapin	Yes

020063		IIa	Toad, oak	Anaxyrus quercicus	Yes

Public Holdings: (2 names)

Name	Agency	Level
Antioch Pines State Natural Area Preserve	VA Dept. of Conservation and Recreation	State
Blackwater Ecological State Natural Area Preserve	VA Dept. of Conservation and Recreation	State

Compiled on 3/23/2022, 2:02:42 PM [1171622.0 report=IPA searchType= P dist= 3218 poi= 36.8267700 -76.8079899 siteDD= 36.8267790 -76.8079994;36.8267430 -76.8076714;36.8267420
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Species Observations where Bat, tri-colored (050027) observed 629597

36.82677 -76.80798
is the Search Point

Display at center | Item Location is not at map center

Show Position Rings
○ Yes ◉ No
1 mile and 1/4 mile at the Search Point

Show Search Area
◉ Yes ○ No
2 Search distance miles buffer

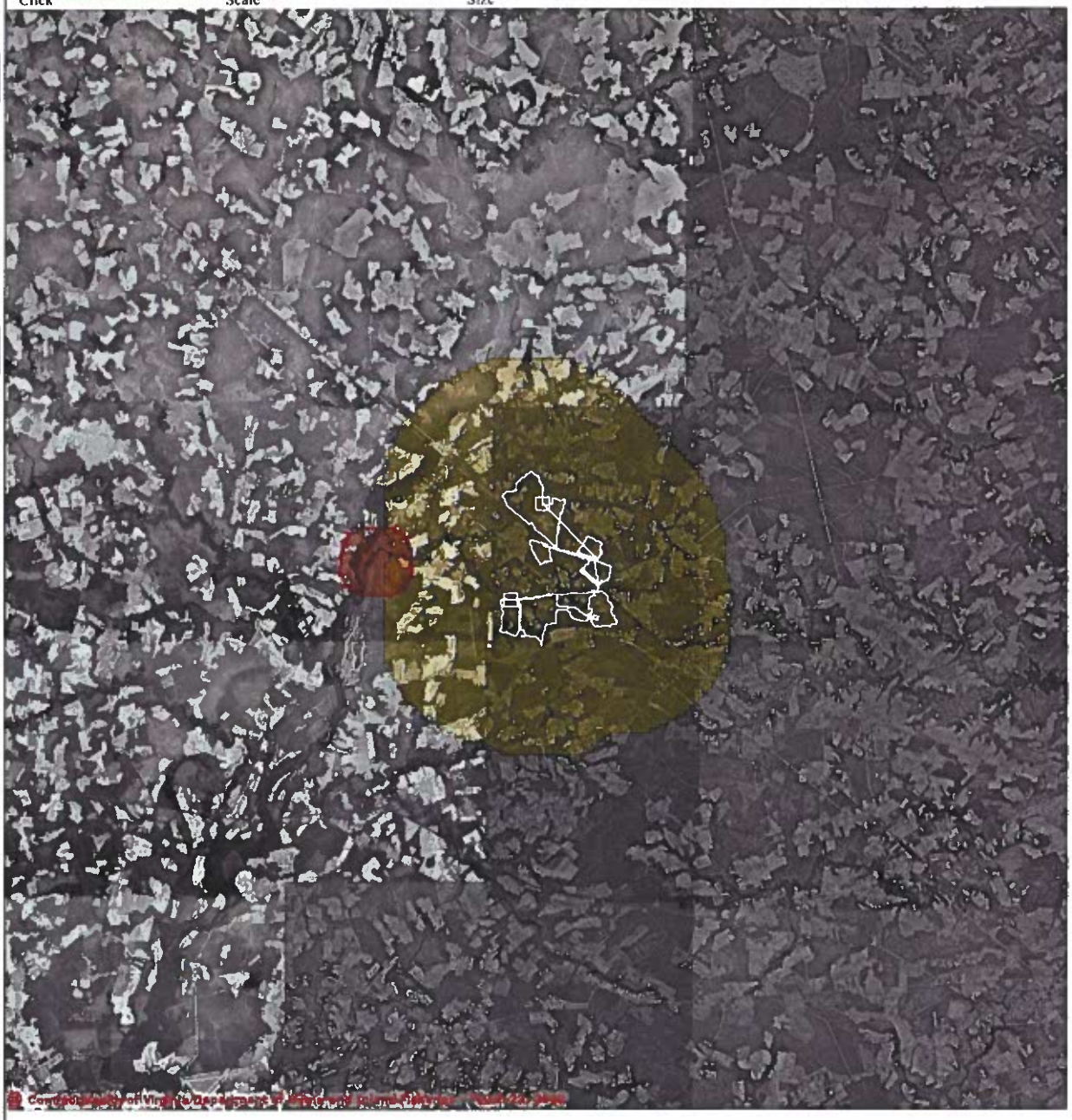
Display at center | Search Point is not at map center

Base Map Choices
BW Aerial Photography

Map Overlay Choices
Current List: Search. Observation

Map Overlay Legend
2 mile radius Search Area
Data Observation Site

back | Map Click Pan | Map Scale In Zoom Out | Refresh Browser Page | Screen Size Small Size Big | Help



Point of Search 36.82677 -76.80798
Map Location 36.83744 -76.79231

Select Coordinate System:
○ Degrees,Minutes,Seconds Latitude - Longitude
◉ Decimal Degrees Latitude - Longitude
○ Meters UTM NAD83 East North Zone
○ Meters UTM NAD27 East North Zone

Base Map source: Black & White USGS Aerial Photography (see Microsoft.terraserver-usa.com for details)

Map projection is UTM Zone 18 NAD 1983 with left 324183 and top 4094339. Pixel size is 19. .
Coordinates displayed are decimal Degrees North and West. Map is currently displayed as 1000 columns by 1000 rows for a total of 1000000 pixles. The map display represents 32000 meters east to west by 32000 meters north to south for a total of 1024.0 square kilometers. The map display represents 105004 feet east to west by 105004 feet north to south for a total of 395.5 square miles.

Topographic maps and Black and white aerial photography for year 1990+-
are from the United States Department of the Interior, United States Geological Survey.
Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.
Shaded topographic maps are from TOPO! ©2006 National Geographic
http://www.national.geographic.com/topo
All other map products are from the Commonwealth of Virginia Department of Game and Inland Fisheries.

map assembled 2022-03-23 15:19:57 (qa/qc March 21, 2016 12:20 - tn=1171693.1 dist=3218 1)
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| DGIF | Credits | Disclaimer | Contact vafwis_support@dgif.virginia.gov |Please view our privacy policy|
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Virginia Department of Game and Inland Fisheries

3/23/2022 2:03:08 PM

Fish and Wildlife Information Service

VaFWIS Search Report Compiled on 3/23/2022, 2:03:08 PM

Help

Known or likely to occur within a **2 mile buffer around polygon; center 36.8267700 -76.8079899**
in **093 Isle of Wight County, 175 Southampton County, VA**
where (050027) **Bat, tri-colored** observed.

View Map of Site Location

Species Observations where Bat, tri-colored (050027) observed (1 records , 1 Observation with Threatened or Endangered species)

View Map of All Query Results
Species Observations where Bat, tri-colored (050027) observed

obsID	class	Date Observed	Observer	N Species			View Map
				Different Species	Highest TE*	Highest Tier**	
629597	SppObs	Jul 31 2017	Chris Hobson; Megan Ayers	1	SE	I	Yes

Displayed 1 Species Observations where Bat, tri-colored (050027) observed

*FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed; FC=Federal Candidate; CC=Collection Concern

**I=VA Wildlife Action Plan - Tier I - Critical Conservation Need;
II=VA Wildlife Action Plan - Tier II - Very High Conservation Need;
III=VA Wildlife Action Plan - Tier III - High Conservation Need;
IV=VA Wildlife Action Plan - Tier IV - Moderate Conservation Need
Virginia Widlife Action Plan Conservation Opportunity Ranking:
a - On the ground management strategies/actions exist and can be feasibly implemented.;
b - On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.;
c - No on the ground actions or research needs have been identified or all identified conservation opportunities have been exhausted.

Compiled on 3/23/2022, 2:03:08 PM 1171622.1 report=BOVA searchType= P dist= 3218 poi= 36.8267700 -76.8079899

audit no. 1171622 3/23/2022 2:03:08 PM Virginia Fish and Wildlife Information Service

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DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

04 May 2022

PRELIMINARY JURISDICTIONAL DETERMINATION

Eastern Virginia Regulatory Section
NAO-2021-03069 (Burnt Mills Swamp, Antioch Swamp, Pine Swamp)

Mr. Patrick Buckley
Open Road Renewables
1105 Navasota Street
Austin, TX 78702

Mr. Dan Cox
Timmons Group
1001 Boulders Parkway
Suite 300
Richmond, VA 23225

Dear Mr. Buckley and Mr. Cox:

This letter is in regard to your request for a preliminary jurisdictional determination (PJD) of the aquatic resources (e.g., wetlands, streams, and ponds), on an approximately 937-acre property generally situated south of Burnt Mills Swamp, east of Pine Swamp, north of SR 603, and west of SR 646 in Isle of Wight County, Virginia.

The attached maps entitled "CARVER SOLAR, ISLE OF WIGHT COUNTY, VIRGINIA, FIGURE 4: WETLANDS AND WATERS DELINEATION MAP" (5 sheets, including the index sheet) dated 08 March 2022 by the Timmons Group and date-stamped received by the U.S. Army Corps of Engineers (Corps) on 09 March 2022, provide the approximate locations of the aquatic resources within the project area referenced above. This letter does not confirm the Cowardin classifications of these aquatic resources.

These aquatic resources exhibit wetland criteria as defined in the Corps of Engineers Wetlands Delineation Manual (1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region, Version 2.0 (2010). This site also contains aquatic resources with an ordinary high-water mark. This PJD and associated aquatic resource delineation map may be submitted with a permit application.

Please be aware that you may be required to obtain a Corps permit for any discharge of dredged and/or fill material, either temporary or permanent, into a water of the U.S. In addition, you may be required to obtain a Corps permit for certain activities

occurring within, under, or over a navigable water of the U.S. subject to the Section 10 of the Rivers and Harbors Act. Furthermore, you may be required to obtain state and local authorizations, including a Virginia Water Protection Permit from the Virginia Department of Environmental Quality (DEQ), a permit from the Virginia Marine Resources Commission (VMRC), and/or a permit from your local wetlands board.

This delineation and PJD may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. Therefore, if you or your tenant are US Department of Agriculture (USDA) program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

The Norfolk District has relied on the information and data provided by the agent to make this PJD. If it is determined such information and data are materially false or materially incomplete, a new PJD would be required.

This is a PJD and is not a legally binding determination regarding whether Corps jurisdiction applies to the aquatic resources in question. To determine Corps' jurisdiction, you may request and obtain an approved jurisdictional determination.

This delineation of aquatic resources can be relied upon for no more than five years from the date of this letter. New information may warrant revision. Enclosed is a copy of the "Preliminary Jurisdictional Determination Form". Please review the document, sign, and return one copy to me.

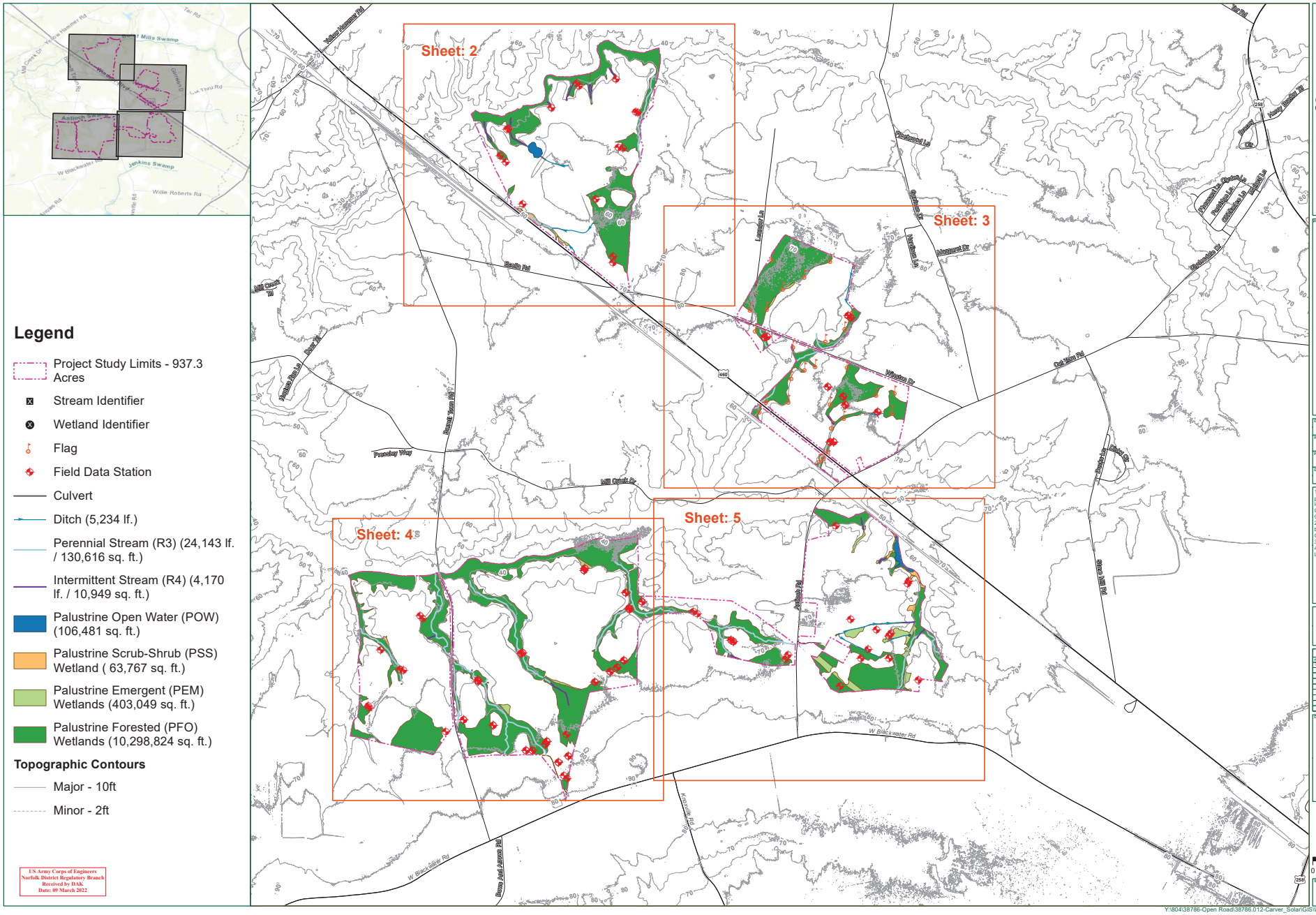
If you have any questions, please contact me either by telephone at (757) 201-7488 or by email at david.a.knepper@usace.army.mil .

Sincerely,



David A. Knepper
Environmental Scientist
Eastern Virginia Regulatory Section

Enclosure(s)



TIMMONS GROUP
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1001 Boulders Parkway, Suite 300
Richmond, VA 23225
TEL 804.200.6500
www.timmons.com

PROJECT NAME & LOCATION
CARVER SOLAR
ISLE OF WIGHT COUNTY, VIRGINIA

DATE: 01/19/2021
PROJECT NUMBER: 38786.012
PROJECT NAME: CARVER SOLAR
DESIGNED BY / DRAWN BY: M. COOLEY

1. Waters of the U.S. within the project study limits have been located using submeter, Bluetooth GPS antennas by Timmons Group.
2.Waters of the U.S. have not been confirmed by the U.S. Army Corps of Engineers until stamped.
3. Project limits are approximate.
4. Topography based on USGS LiDAR.

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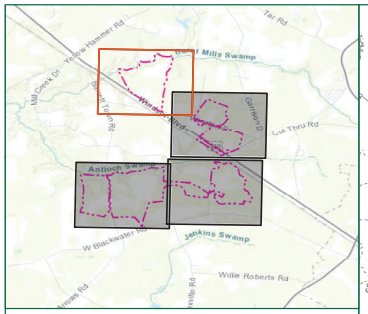
REVISIONS

NO.	BY	DESCRIPTION
1	DAK	Per COE 404 Visit

DRAWING DESCRIPTION
FIGURE 4:
WETLANDS AND WATERS DELINEATION MAP

SCALE (FEET)
0 800 1,600
PLANS PRINTED AS 11X17 ARE HALF SCALE
SCALE: H:1 " = 800 '
SHEET NUMBER: 1 of 5

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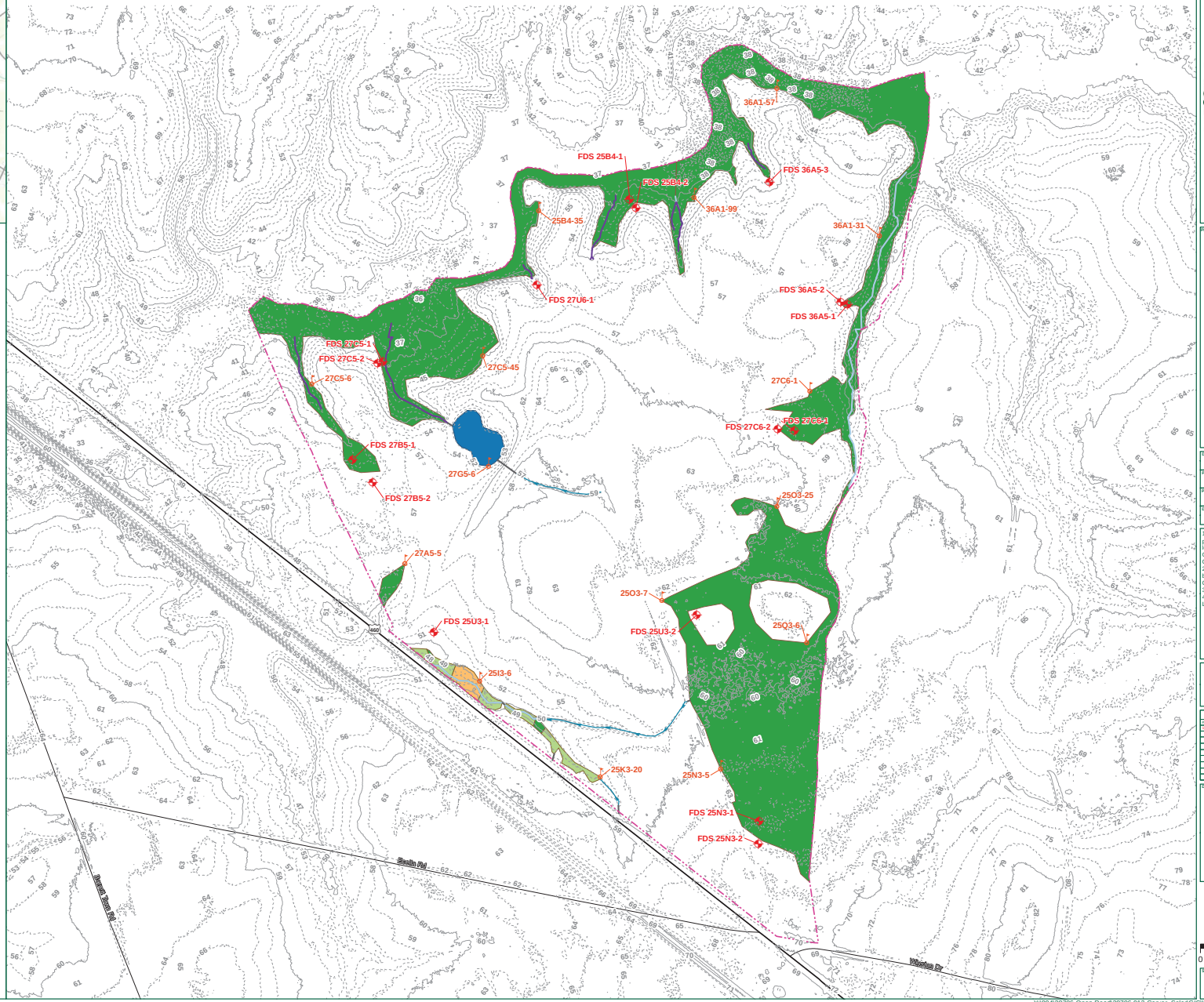
Legend

- Project Study Limits - 937.3 Acres
- Stream Identifier
- Wetland Identifier
- Flag
- Field Data Station
- Culvert
- Ditch (5,234 lf.)
- Perennial Stream (R3) (24,143 lf. / 130,616 sq. ft.)
- Intermittent Stream (R4) (4,170 lf. / 10,949 sq. ft.)
- Palustrine Open Water (POW) (106,481 sq. ft.)
- Palustrine Scrub-Shrub (PSS) Wetland (63,767 sq. ft.)
- Palustrine Emergent (PEM) Wetlands (403,049 sq. ft.)
- Palustrine Forested (PFO) Wetlands (10,298,824 sq. ft.)

Topographic Contours

- Major - 10ft
- Minor - 2ft

US Army Corps of Engineers
Norfolk District Regulatory Branch
Received by DAK
Date: 09 March 2022



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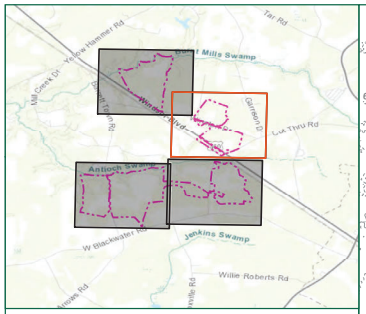
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FIGURE 4:
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SCALE (FEET)
0 250 500
PLANS PRINTED AS 11X17 ARE HALF SCALE

SCALE	SHEET NUMBER
H:1 " = 250 '	2 of 5

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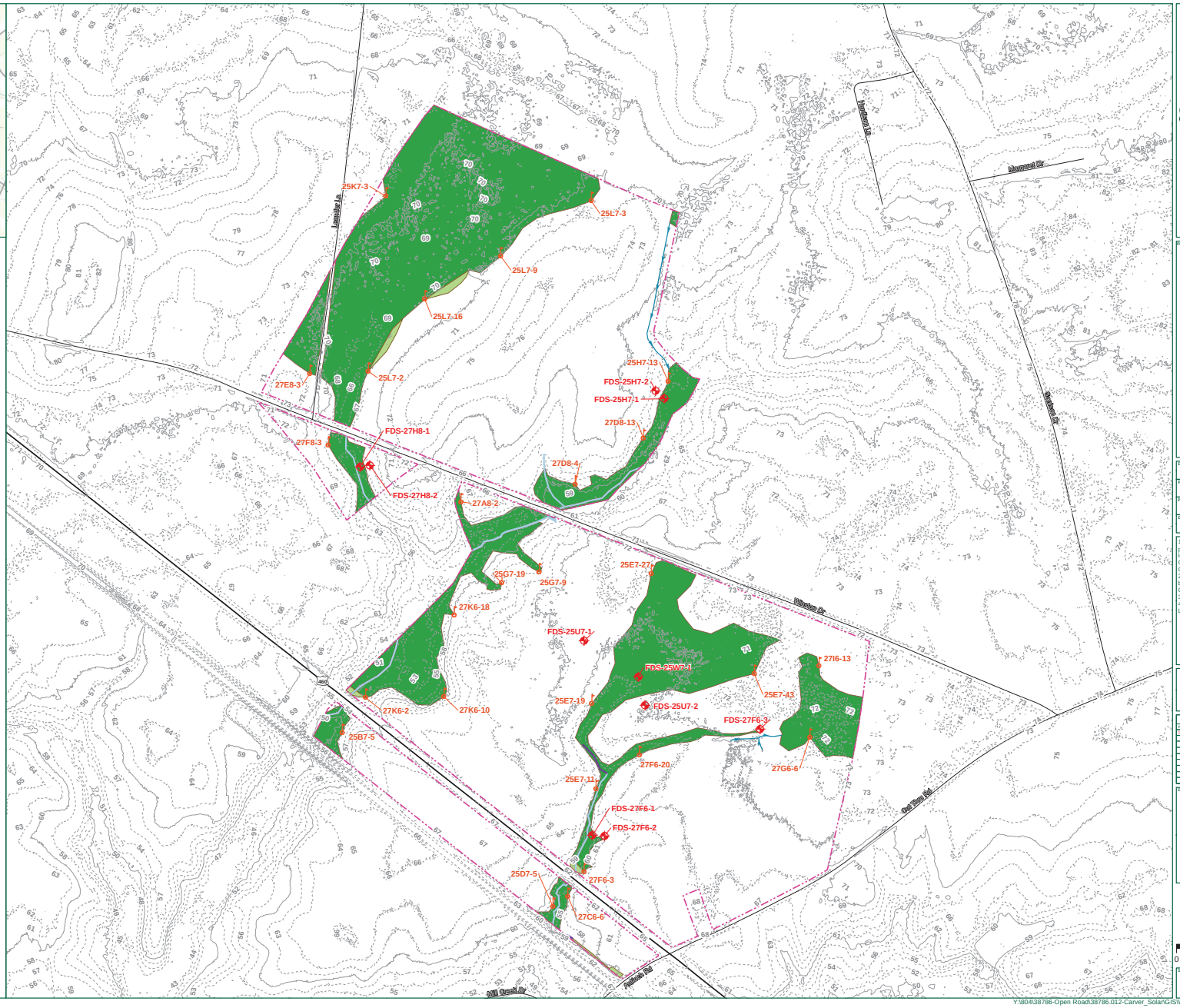
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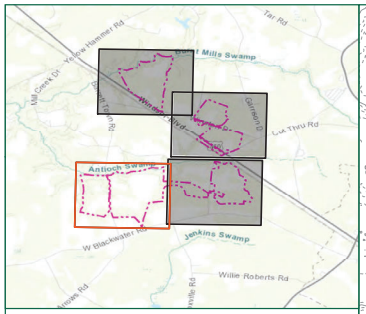
NO.	BY	DESCRIPTION	DATE
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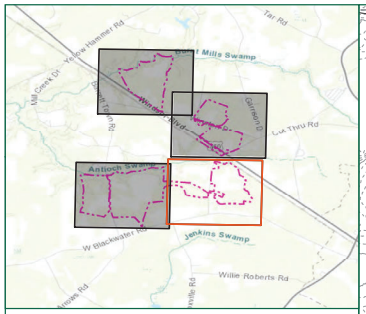
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NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Open Road Renewables (c/o Mr. Patrick Buckley)	File Number: NAO-2021-03069	Date: 04 May 2022

Attached is:		See Section below
☐	INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	A
☐	PROFFERED PERMIT (Standard Permit or Letter of permission)	B
☐	PERMIT DENIAL	C
☐	APPROVED JURISDICTIONAL DETERMINATION	D
☒	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://usace.army.mil/inet/functions/cw/cecwo/reg or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the Norfolk District Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations (JD) associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the Norfolk District Engineer. Your objections must be received by the Norfolk District Engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the Norfolk District Engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the Norfolk District Engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the Norfolk District Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-PD-PSD-O, Fort Hamilton Military Community, Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the North Atlantic Division Engineer within 60 days of the date of this notice with a copy furnished to the Norfolk District Engineer.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-PD-PSD-O, Fort Hamilton Military Community, Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the North Atlantic Division Engineer within 60 days of the date of this notice with a copy furnished to the Norfolk District Engineer.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-PD-PSD-O, Fort Hamilton Military Community, Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the North Atlantic Division Engineer within 60 days of the date of this notice with a copy furnished to the Norfolk District Engineer.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact: U.S. Army Corps of Engineers, Norfolk District c/o Mr. David Knepper 803 Front Street Norfolk, VA 23510-1096 Telephone: (757) 201-7488 Email: david.a.knepper@usace.army.mil	If you only have questions regarding the appeal process you may also contact: Ms. Amanda Regan Regulatory Program Manager (CENAD-PD-OR) U.S. Army Corps of Engineers Fort Hamilton Military Community 301 General Lee Avenue Brooklyn, New York 11252-6700 Telephone number: (917) 831-9105 Amanda.M.Regan@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

_____ Signature of appellant or agent.	Date:	Telephone number:

DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NORFOLK DISTRICT
FORT NORFOLK
803 FRONT STREET
NORFOLK VA 23510-1011

04 May 2022

Supplemental Preapplication Information
Project Number: NAO-2021-03069

1. A search of the Virginia Department of Historic Resources data revealed the following:

☒ Potential Tribal interest:
Pamunkey Tribe
Delaware Nation, Oklahoma

☒ The following known architectural resources are located on the property:

#	DHR ID	Property Name	Address	Historic Name	NR Eligibility
1	046-0116	Farm, 8151 Blackwater Road (Function/Location), James R. Cobb Farm (Historic), Roberts Farm (Historic), Rocking Horse Stables (Historic)	8151 Blackwater Road	*No Data*	DHR Staff: Not Eligible
2	046-5112	Clements Farm (Current), Farm, 23093 Antioch Road (Function/Location)	23093 Antioch Road	*No Data*	DHR Staff: Not Eligible
3	046-5089	Farm, 23255 Barrett Town Road (Function/Location), Walters Hunt Club (Historic/Current)	23255 Barrett Town Road, Route 641	*No Data*	DHR Staff: Potentially Eligible
4	046-5026	Austin Farm, 7095 W. Blackwater Rd (Historic/Location), House, 7095 West Blackwater Road (Function/Location)	7095 Blackwater Road West - Alt Route 603	*No Data*	DHR Staff: Not Eligible
5	091-5098	AM&O Railroad (Historic), Norfolk & Petersburg Railroad (Historic), Norfolk & Western Railway (Historic), Norfolk Southern Railway (Current)	General Mahone Highway - Alt Route 460	Windsor Historic District	DHR Staff: Eligible
6	046-5028	Chapel Grove Congregational Christian Church (Current Name), Chapel Grove United Church of Christ Cemetery (Current), Church, 7366 West Blackwater Road (Function/Location)	7366 Blackwater Road West - Alt Route 603	*No Data*	DHR Staff: Not Eligible
7	046-5277	House, 23258 Barrett Town Road (Function/Location)	23258 Barrett Town Road, Route 641	*No Data*	DHR Staff: Not Eligible
8	046-5501	House, 9108 Cut Thru Road (Function/Location)	9801 Cut Thru Road - Alt Route 638	*No Data*	DHR Staff: Not Eligible
9	046-5154	Antioch Independent Church (Historic/Current), Church, 23011 Antioch Road (Function/Location)	23011 Antioch Road, Route 657	*No Data*	DHR Staff: Not Eligible
10	046-5027	Austin Farm #2 (Current), House, 7289 West Blackwater Road (Function/Location)	7095 W. Blackwater Road (Route 603), 7289 Blackwater Road West - Alt Route 603	*No Data*	DHR Staff: Not Eligible
11	046-5111	Leland Duck House (Current)	8027 Winston Drive	*No Data*	DHR Staff: Not Eligible
12	046-5102	Dale and Helen Kelley House (Current)	7229 Windsor Boulevard	*No Data*	DHR Staff: Not Eligible
13	046-5575	Antioch Church Cemetery (Current Name), Cemetery, Antioch Road (Function/Location)	Antioch Road	*No Data*	DHR Staff: Not Eligible

☒ The following known archaeological resources are located on the property:

#	DHR ID	Site Name	Site Category	Time PEriod	Restricted
1	44IW0248	*No Data*	Domestic	18th Century (1700 - 1799)	Restricted: No release
2	44IW0286	*No Data*	Domestic	Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1988)	*No Data*
3	44IW0251	*No Data*	Domestic, Subsistence/Agriculture	Historic/Unknown	Restricted: No release

NOTE:

1) *The information above is for planning purposes only. In most cases, the property has not been surveyed for historic resources. Undiscovered historic resources may be located on the subject property or adjacent properties and this supplemental information is not intended to satisfy the Corps' requirements under Section 106 of the National Historic Preservation Act (NHPA).*
2) *Prospective permittees should be aware that Section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant.*

2. A search of the data supplied by the U.S. Fish & Wildlife Service, the Virginia Department of Conservation and Recreation and the Virginia Department of Wildlife Resources revealed the following:

☒ The following federally-listed species may occur within the vicinity of the subject property:

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Please note this information is being provided to you based on the preliminary data you submitted to the Corps relative to project boundaries and project plans. Consequently, these findings and recommendations are subject to change if the project scope changes or new information becomes available and the accuracy of the data.

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: 04 May 2022

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:
Mr. Dan Cox Timmons Group 1001 Boulders Parkway Suite 300 Richmond, VA 23225

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

NAO-2021-03069

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: Virginia County/parish/borough: Isle of Wig City: N/A

Center coordinates of site (lat/long in degree decimal format): 36.834931° / -76.780864°

Lat.: xx.xxx° Long.: yy.yyy°

Universal Transverse Mercator:

Name of nearest waterbody: Burnt Mills Swamp, Antioch Swamp, Pine Swamp

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☑ Office (Desk) Determination. Date: 04 May 2022

☑ Field Determination. Date(s): 03 March 2022

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
PJD figur			~247 acres	non-tidal wetlands	404
PJD figu			~33,547 linear ft.	non-tidal streams/ditc	404
PJD figu			~2.4 acres	other non-tidal waters	404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- [x] Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
  Map: cited PJD figures.
- [x] Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - [x] Office concurs with data sheets/delineation report.
  - [ ] Office does not concur with data sheets/delineation report. Rationale: as modified.
- [ ] Data sheets prepared by the Corps: _____.
- [ ] Corps navigable waters' study: _____.
- [ ] U.S. Geological Survey Hydrologic Atlas: _____.
  - [ ] USGS NHD data.
  - [ ] USGS 8 and 12 digit HUC maps.
- [x] U.S. Geological Survey map(s). Cite scale & quad name: accessed via Google Earth Pro
- [x] Natural Resources Conservation Service Soil Survey. Citation: accessed via Google Earth Pro
- [x] National wetlands inventory map(s). Cite name: accessed via Google Earth Pro
- [ ] State/local wetland inventory map(s): _____.
- [ ] FEMA/FIRM maps: _____.
- [ ] 100-year Floodplain Elevation is: ____. (National Geodetic Vertical Datum of 1929)
- [x] Photographs:
  - [x] Aerial (Name & Date): Google Earth Pro, Bing, ArcGIS Pro, Digital Globe, etc.
  - or
  - [x] Other (Name & Date): various dates
- [ ] Previous determination(s). File no. and date of response letter: _____.
- [x] Other information (please specify): LiDAR, AGCP Regional Supplement, USGS National Map, APT

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

KNEPPER.DAVID.A.1229503576 Digitally signed by KNEPPER.DAVID.A.1229503576 Date: 2022.05.04 15:41:43 -04'00'

Signature and date of Regulatory staff member completing PJD

Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)[1]

[1] Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

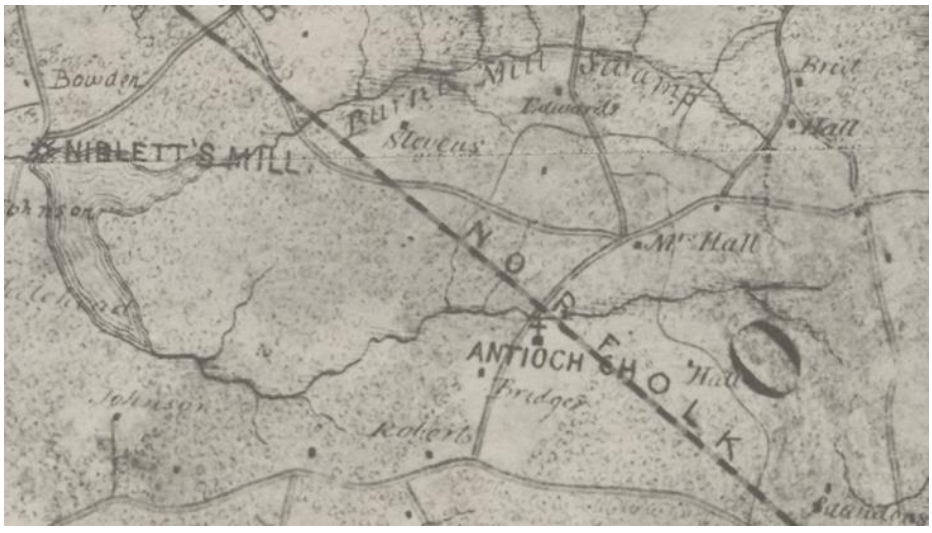
REPORT >

Phase I Archaeological Survey of the Carver Solar Project Area

LOCATION > Isle of Wight County, Virginia

DATE > August 2022

PREPARED FOR >
Carver Solar I, LLC



PREPARED BY >
Dutton + Associates, LLC

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

PHASE I ARCHAEOLOGICAL SURVEY OF THE CARVER SOLAR PROJECT AREA

ISLE OF WIGHT COUNTY, VIRGINIA

PREPARED FOR:
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AUGUST 2022

ABSTRACT

From March 23 through June 3, 2022, D+A completed Phase I archaeological survey of the proposed ±309.5-hectare (±765-acre) Carver Solar project area. The archaeological survey specifically covered the ±241-hectare (±596.1-acre) fenced area of the proposed facility, which is where ground disturbance is planned for solar array installation. Survey consisted of systematic pedestrian survey and subsurface testing of areas deemed to have potential for the presence of archaeological deposits. The survey was also guided in part by the Phase IA archaeological assessment titled, Phase IA Cultural Resource Assessment of the ±379.3 Hectares (±937.3 Acre) Carver Solar Project Area (2021), which was prepared for the original proposed project area.

The project area is comprised of pine forests, poorly drained lowlands, and agricultural fields. Antioch Swamp runs east-west between the discontiguous parcels which comprised the project area. Likewise, Windsor Boulevard (Route 460) runs northwest-southeast through the parcels and Winston Drive runs southeast-northwest through two parcels in the eastern portion of the project area. Burnt Mill Swamp is north of the project area, and Blackwater Road is south of the project area. At the time of the survey, a large number of the project area parcels located south of Route 460 had recently been plowed and surface visibility was excellent. Some project area parcels were in pasture or winter wheat, with woodlands typically lining streams and wetlands. For most larger forested areas, timber harvesting had occurred within the last decade and in many areas visible evidence of soil disturbance such as push piles, slash, and exposed soils were still evident.

Archaeological field survey consisted of a combination of systematic pedestrian survey and subsurface shovel testing. Pedestrian survey was conducted when agricultural fields were plowed and surface visibility was greater than 50% per the Virginia Department of Historic Resources (VDHR) survey guidelines. Pedestrian survey was conducted along transects varying between 7.5 meters (25 feet) and 15 meters (50 feet) apart. For areas where surface visibility was less than 50% and where the potential for archaeological deposits was present, systematic shovel testing was conducted. A total of 261 shovel test pits were excavated.

A total of fourteen archaeological sites were identified during the survey. Four sites were identified on project area parcels north of Route 460 and the remaining ten sites on parcels south of Route 460. All identified sites date to the historic period, although some prehistoric lithic material was recovered in isolated locations in too few numbers to be classified as archaeological sites. Of the newly identified sites, the majority represent late nineteenth to mid twentieth century domestic sites with a wide date range of artifacts and no remaining structural components (Sites 44IW0367, 44IW0368, 44IW0370, 44IW0371, 44IW0372, 44IW0373, 44IW0374, 44IW0376, 44IW0377, 44IW0378, and 44IW0379). Several of these sites are illustrated on historic mapping and aerial imagery of the project area and represent common site types in the area and throughout the region. As such, these sites offer limited research value and are ***recommended as not eligible for listing in the NRHP.***

Previously identified site 44IW0248, a light scatter of eighteenth-century artifacts, was determined by VDHR to not be eligible for listing in the NRHP. A sherd of tin-glazed earthenware was the only related artifact that was recovered during the current effort. Previously recorded site 44IW0286 was not reidentified and is presumed to be located outside of the current proposed

project's limits of disturbance. This site was also previously determined by the VDHR to not be eligible for listing in the NRHP.

Sites 44IW0366, 44IW0369, and 44IW0375 contained pre-Civil War archaeological material and represent antebellum settlement and occupation in the area. Site 44IW0366 contains eighteenth and early nineteenth century domestic artifacts and represents early settlement and occupation of the area. Sites 44IW0369 and 44IW0375 both represent early nineteenth century domestic sites. Both sites are associated with early documented structures with supporting oral history. ***Based on the dates and types of material observed, D+A recommends Field Sites 44IW0366, 44IW0369 and 44IW0375 potentially eligible for listing in the NRHP.*** *Avoidance or further study is recommended. No ground disturbance will take place in the location of Site 44IW0375, so this site will be avoided.*

A summary of all identified sites and their potential NRHP status is provided in the table below

All identified sites and their NRHP recommendation.

Temporary Site #	Temporal Affiliation	NRHP Recommendation	Treatment
44IW0366	Mid-18th – 19th century domestic	Potentially eligible	Avoidance or Phase II Evaluation
44IW0367	Late 19th – 20th century domestic	Not eligible	No further work
44IW0368	Late 19th – 20th century domestic	Not eligible	No further work
44IW0369	Late-18th – 19th century domestic	Potentially eligible	Avoidance or Phase II Evaluation
44IW0370	Late 19th – 20th century domestic	Not eligible	No further work
44IW0371	Late 19th – 20th century domestic	Not eligible	No further work
44IW0372	Late 19th – 20th century domestic	Not eligible	No further work
44IW0373	Late 19th – 20th century domestic	Not eligible	No further work
44IW0374	Late 19th – 20th century domestic	Not eligible	No further work
44IW0375	Early 19th century domestic	Potentially eligible	Avoidance or Phase II Evaluation
44IW0376	Late 19th – 20th century domestic	Not eligible	No further work
44IW0377	Late 19th – 20th century domestic	Not eligible	No further work
44IW0378	Late 19th – 20th century domestic	Not eligible	No further work
44IW0379	Late 19th – 20th century domestic	Not eligible	No further work

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1. INTRODUCTION

From March 23 through June 3, 2022, Dutton +Associates, LLC (D+A) conducted a Phase I cultural resource survey (Phase I) of the ±379.3-hectare (±937.3-acre) Carver Solar project area. This survey consisted of both architectural and archaeological investigations to identify cultural resources greater than 50 years in age and assess their potential eligibility for inclusion in the National Register of Historic Places (NRHP). This volume contains the results of the archaeological survey. The architectural survey is being submitted as a separate volume.

The project area consists of discontiguous parcels in Isle of Wight County in Zuni (Figures 1-1 and 1-2). It is roughly bounded on the south by Blackwater Road, bisected by Windsor Boulevard (Route 460), and bounded to the north by Burnt Mill Swamp. The archaeological survey area consisted of the portions of the property where ground disturbance could potentially take place. This survey area was located within the parcel boundaries of the project and excludes all wetlands (Figure 1-3).

Hope Smith, PhD., served as the Principal Investigator, prepared the research design, and coauthored the report. Dara Friedberg, M.S., conducted background research for the project and coauthored the report. Copies of all field notes, maps, correspondence, and research materials are on file at D+A's main office in Midlothian, Virginia.

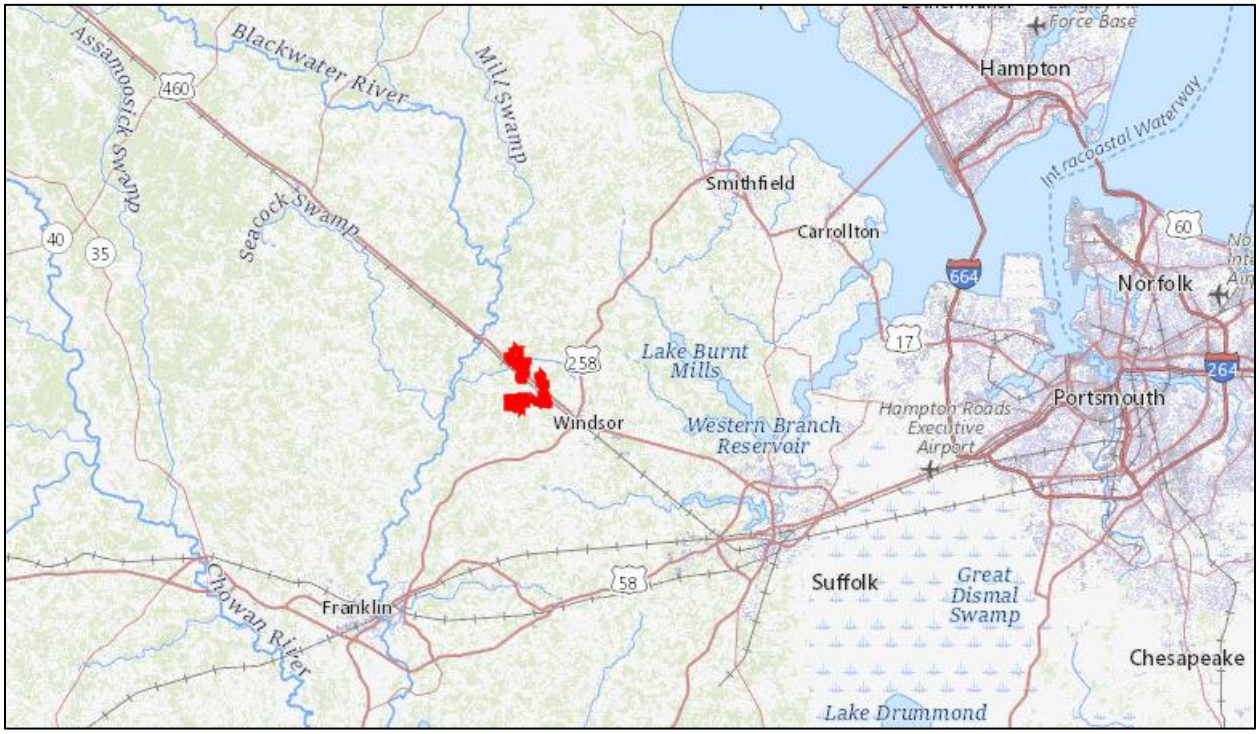


Figure 1-1: General location of the project area. Source: USGS the National Map 2022

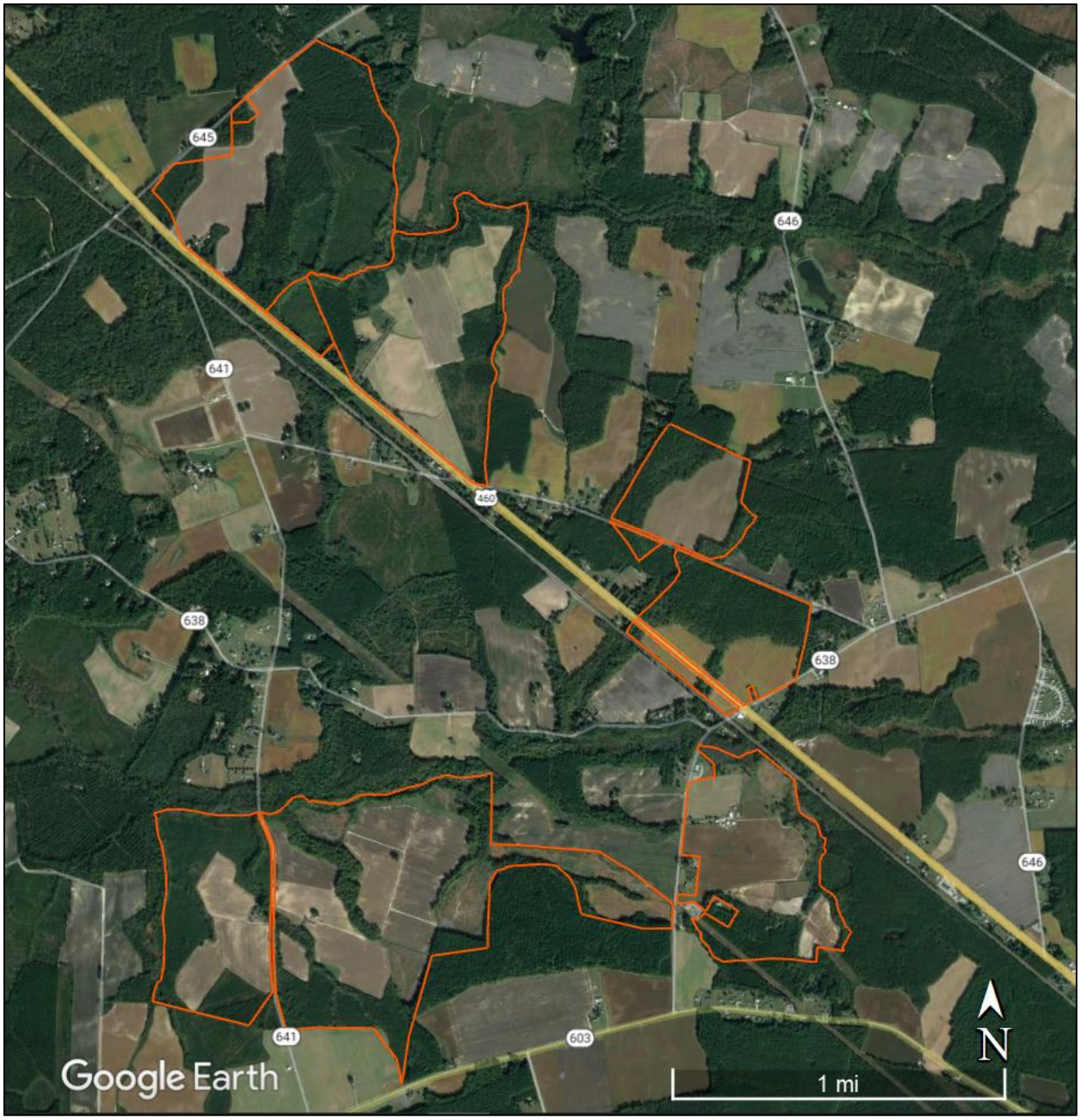


Figure 1-2: Aerial view showing parcels of entire project area.

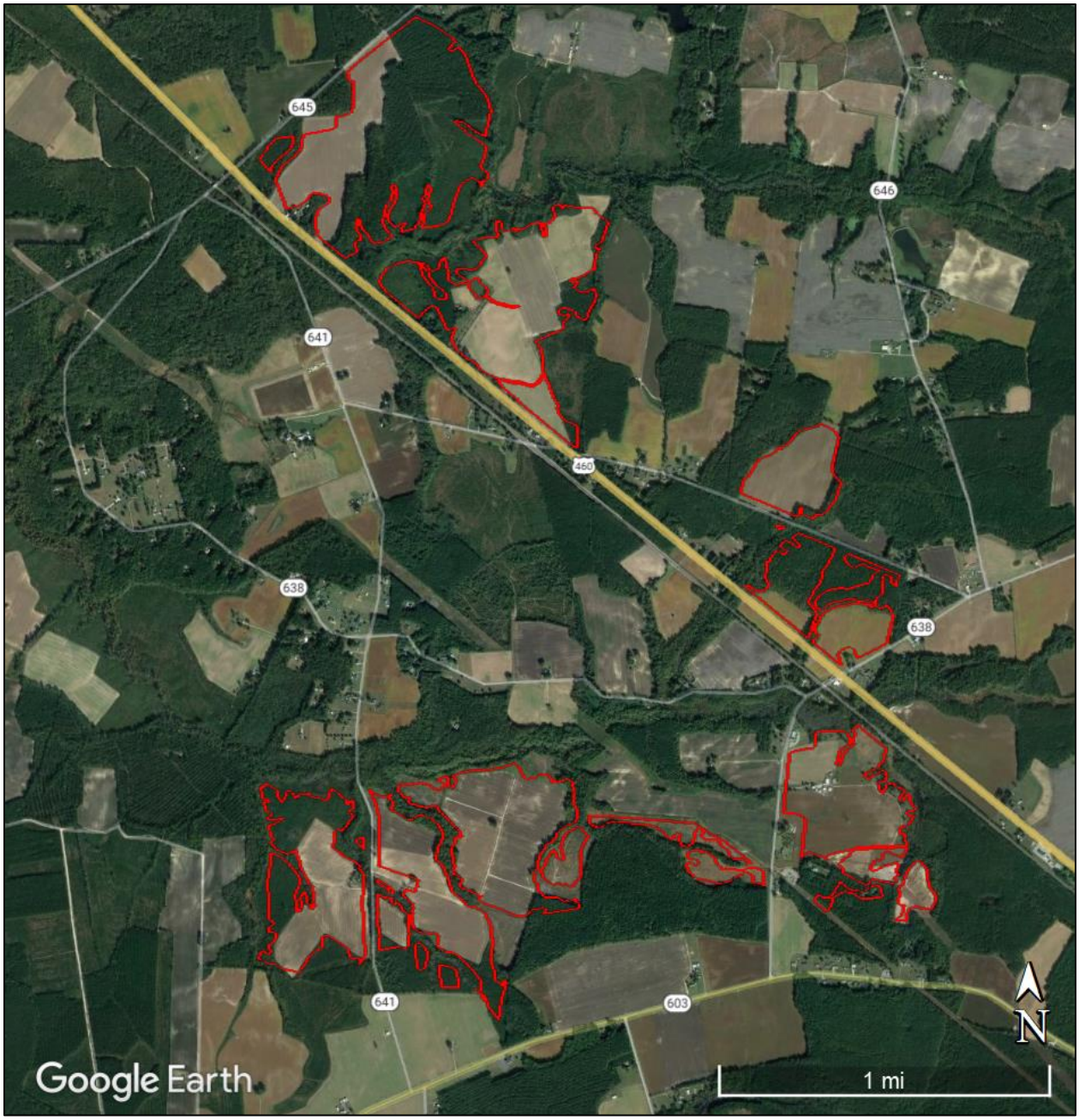


Figure 1-3: Aerial view of archaeological survey area shown in red. Source: Google Earth 2019

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2. RESEARCH DESIGN

The Phase I cultural resource survey of the Carver Solar project area was undertaken in order to confirm the existing condition of the property, note any surface evidence of cultural activity, recommend and implement an appropriate survey methodology for the property based upon the results of the background research and field reconnaissance, and identify the presence or absence of cultural resources on the property. The background research, field reconnaissance, and field survey methodologies are summarized below.

ARCHIVAL RESEARCH

In March 2022, D+A conducted background research with the goal of identifying all previously recorded historic properties located within and in the vicinity of the project area in accordance with VDHR's guidance document titled *Guidelines for Conducting Cultural Resources Survey in Virginia* (rev. 2017). Background research was conducted at the VDHR and on the internet and including the following sources:

- VDHR V-CRIS site files; and
- National Park Service, American Battlefield Protection Program, maps and related documentation.

As part of this Phase I study, D+A checked resource data at each of the above sources to verify accuracy and ensure the information was up to date at the time of the survey. In further preparation for the Phase I survey, D+A conducted additional review of the following documents and sources for information relative to unrecorded archaeological sites in the project area:

- USDA Historic Aerial Imagery;
- U.S. Geological Survey Topographic Maps;
- Previous historic resource survey documents; and
- Local historical society archives.

The additional review conducted in support of the Phase I survey was designed to identify all properties greater than 50 years of age located within the project area.

CONTEXT DEVELOPMENT

Information from the literature review and background search was used in conjunction with additional research to develop a cultural and historical context to place the project area and any identified historic resources within their appropriate context for evaluations of historical significance. This context was developed through review of previous cultural resource studies, published and unpublished manuscripts, historic maps, aerial photographs, local histories, and a variety of internet sources.

For the purposes of this effort, a comprehensive cultural context of Isle of Wight County was prepared summarizing general historical trends, settlement patterns, and development with a focus

on the vicinity of the project area. Further analysis and context development was undertaken for the defined survey area so that newly recorded resources could be effectively evaluated.

FIELD SURVEY

Archaeological Resources

At the outset of field investigations, a pedestrian survey of the project area was conducted to document existing conditions and to note surface evidence of cultural activity or material and identify areas with the potential for intact subsurface archaeological resources. For any newly encountered archaeological resources identified during the reconnaissance, photographs were taken of the general vicinity and of any visible features. A field map was prepared showing feature locations, permanent landmarks, topographic and vegetation variation, as well as sources of disturbance. Sufficient information was included on the map to permit easy re-identification of the resources.

Following the pedestrian survey, systematic shovel testing was conducted in accordance with a probability model submitted to VDHR and DEQ as part of the *Phase IA Cultural Resources Assessment of the ±379.3-Hectare (±937.3-Acre) Carver Solar Project Area.* This model divided the project area into areas of high, medium, and low potential, with no subsurface testing recommended for areas of documented or visible significant ground disturbance, slopes in excess of 15 percent, and areas in statutory wetlands or water saturated soils at the time of the survey. Shovel tests were excavated at a maximum of 15-meter (50-foot) intervals along transects spaced 15 meters (50 feet) apart. The shovel test interval may be extended in areas where soils and topography indicate that the potential for archaeological deposits to be present was considered low. The soil excavated from all shovel tests was passed through 0.63-centimeter (1/4-inch) mesh screen and all shovel tests were approximately 0.38 meters (15 inches) in diameter and excavated to sterile subsoil or the practical limits of excavation. Isolated positive shovel tests were bracketed with radial shovel tests (half the distance to the next shovel test in all four directions) until two negative shovel tests in each direction were documented.

For any archaeological resources identified during the survey, photographs were taken of the general vicinity and of any visible features. A field map was prepared showing site limits, feature locations, permanent landmarks, topographic and vegetational variation, sources of disturbance, and all surface and subsurface investigations. GPS coordinates for all identified site locations were recorded and sufficient information was included on maps to permit easy relocation of sites. Notes were taken on surface and vegetational conditions, soil characteristics, dimensions and construction of features evident, and the amount and distribution of cultural materials present. All subsurface archaeological excavations were backfilled and returned to pre-survey conditions.

LABORATORY ANALYSIS

All artifacts recovered in the course of the survey were provenienced in the field and recorded. Following fieldwork, the artifacts were transported to the D+A laboratory facilities where they were cleaned, sorted, and identified. After processing, all artifacts were inventoried using

Microsoft Excel. A computer-printed artifact inventory of prehistoric and historic artifacts is included as an appendix to this report.

Identification of diagnostic artifacts was made by consulting existing comparative collections and available regional literature regarding artifact types. Artifacts were assigned dates through the comparison of identified artifacts with other material culture classes having documented use-popularity patterns. Ceramics and glass provided primary chronological information. All artifacts were placed in polyethylene re-sealable storage bags and placed in acid free boxes suitable for permanent curation. At the conclusion of the survey, arrangements will be made with the client regarding final deposition of the artifacts.

REPORT AND RECORD PREPARATION

Information from field survey was used in conjunction with background research and context development to assess each identified cultural resource for potential NRHP-eligibility. A results section was prepared that summarizes the field findings, assessment of significance and NRHP-eligibility. The results of the study are accompanied by maps and photographs as appropriate and were synthesized and summarized in this report along with the research design, archives search, and cultural contexts. All research material and documentation generated by this project are on file at D+A's office in Midlothian, Virginia. VDHR site forms (Virginia Cultural Resources Information System (V-CRIS) were completed for all cultural resources, 50 years of age or older, identified during the survey. Site forms for archaeological sites are include as an appendix to this report.

QUALIFICATIONS AND STANDARDS

The D+A personnel who directed and conducted this survey meet the professional qualification standards of the Department of the Interior (48 FR 44738-9). All work was conducted in accordance with the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (Federal Register 48:44716-44742, September 29, 1983), and VDHR's *Guidelines for Conducting Historic Resource Survey in Virginia* (rev. 2017).

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3. ENVIRONMENTAL CONTEXT

PHYSICAL DESCRIPTION AND LOCATION

The Carver project area is situated in the Coastal Plain physiographic region of Virginia in a rural area with a modest amount of commercial and residential development nearby. Land use consists of planted pine woodlands and agricultural fields. The project area is partially bordered by Route 460. It is intersected to the northwest by Route 645, to the southeast by Route 638, and to the southwest by Route 641. This environmental context chapter details the geology and soils of the entire lease area, which extends beyond the area to be disturbed by the development of the solar field (Figure 3-1).



Figure 3-1: Aerial view of the Carver project area. Source: Google Earth 2022

GEOLOGY AND TOPOGRAPHY

The project area is predominantly flat, with gentle slopes leading into drainage ways. Landforms are well defined only where several drainages bound upland areas on multiple sides; for example, the southern section of the project area on either side of Barrett Town Road contains several landforms dissected by Antioch Swamp and its tributaries. Low relief and gentle slopes are associated with the Upland subprovince of the Coastal Plain physiographic region. The region is underlain by unconsolidated and poorly consolidated Coastal Plain sediments, and the project area specifically is underlain by the Charles City formation, which dates to the Quarternary Period. A dendritic drainage pattern occurs throughout this region with flat topography and shallow, sluggish drainage ways, often bordered by broad wetlands or floodplains. Elevation ranges from 10 meters (33 feet) above mean sea level (AMSL) in the eastern side of the project area to 26 meters (85 feet) AMSL in the southern portion of the western side of the project area.

HYDROLOGY

Runoff from the northern parcels drains north and south into Burnt Mills Swamp, which empties to Antioch Swamp. Runoff from the central and southern parcels drains directly to Antioch swamp and its several unnamed tributaries. Water from Antioch Swamp flows sequentially into the Chowan River, the Albemarle Sound, and ultimately the Atlantic Ocean.

PEDOLOGY

The project area is dominated by loamy marine deposits. The most abundant soil types in the project area are Kinston loam, Myatt fine sandy loam, Slagle fine sandy loam, and Uchee loamy sand (Figure 3-2, Table 3-1). Approximately 46% of the survey is poorly drained or somewhat poorly drained. The remaining 56% of the project area is well drained or moderately well drained. Slopes range from 1% to 8% grade (Figure 3-3).

Table 3-1: Unit summary of soils within the Carver project area. Source: USDA

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
4	Chipley sand	Moderately well drained	1.0	0.1%
5A	Emporia fine sandy loam, 0 to 2 percent slopes	Well drained	59.2	5.0%
5B	Emporia fine sandy loam, 2 to 6 percent slopes	Well drained	35.3	3.0%
6	Kenansville loamy sand	Well drained	7.5	0.6%
7	Kinston loam	Poorly drained	263.1	22.2%
9	Myatt fine sandy loam	Poorly drained	170.2	14.4%
10	Nawney loam	Very poorly drained	67.6	5.7%
12A	Peawick silt loam, 0 to 2 percent slopes	Moderately well drained	4.4	0.4%
12B	Peawick silt loam, 2 to 6 percent slopes	Moderately well drained	0.4	0.0%
18A	Slagle fine sandy loam, 0 to 2 percent slopes	Moderately well drained	161.1	13.6%
18B	Slagle fine sandy loam, 2 to 6 percent slopes	Moderately well drained	23.8	2.0%
18C	Slagle fine sandy loam, 6 to 10 percent slopes	Moderately well drained	9.0	0.8%
19A	Uchee loamy sand, 0 to 2 percent slopes	Well drained	116.0	9.8%
19B	Uchee loamy sand, 2 to 6 percent slopes	Well drained	76.4	6.5%
20B	Uchee-Peawick complex, 2 to 6 percent slopes	Well drained	140.5	11.9%
20C	Uchee-Peawick complex, 6 to 10 percent slopes	Well drained	6.8	0.6%
23	Yemassee fine sandy loam	Somewhat poorly drained	42.1	3.6%
W	Water		0.5	0.0%
Totals for Area of Interest			**1,184.9**	**100.0%**

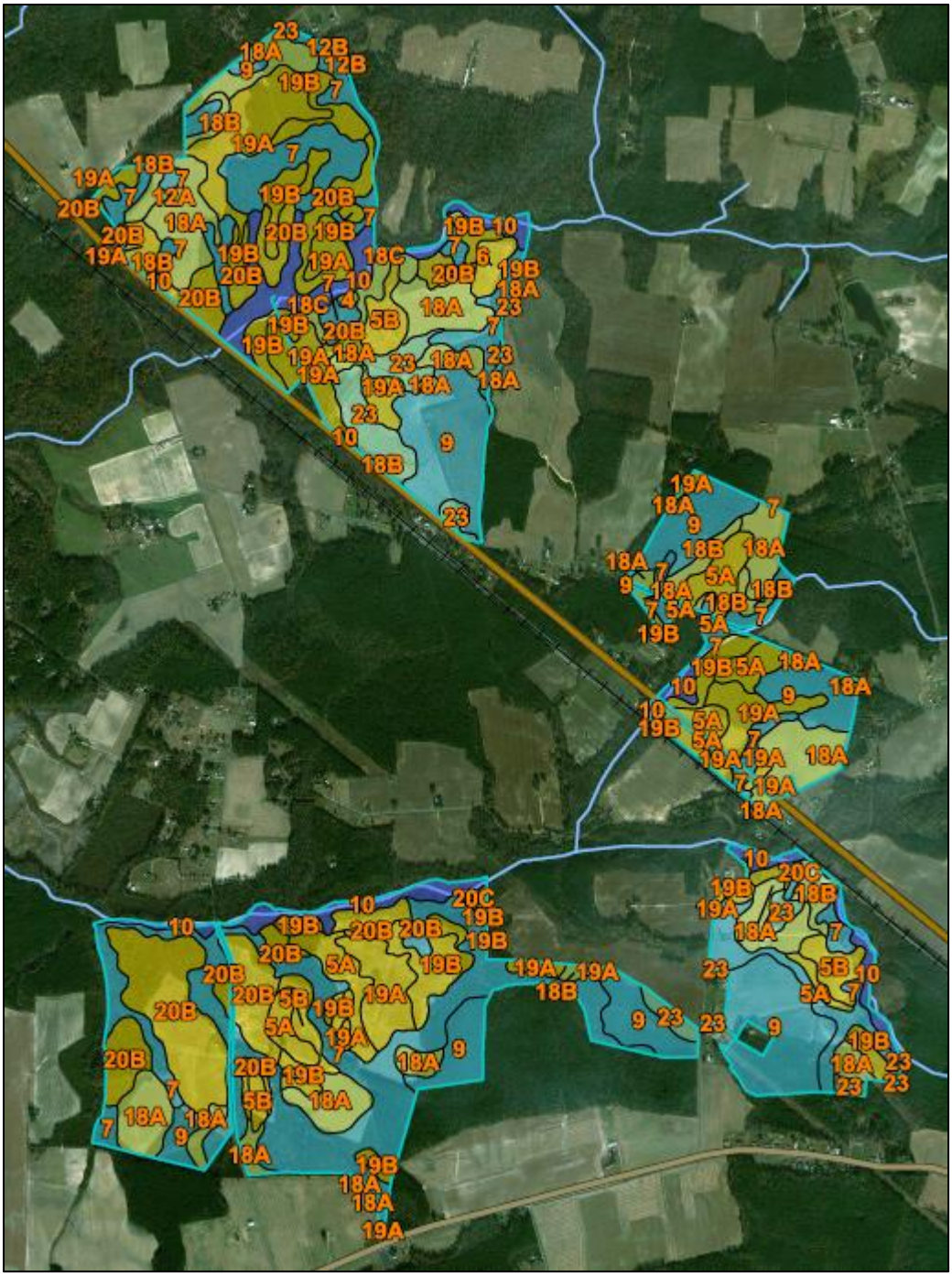


Figure 3-2: Soils map of the Carver project area, showing drainage class. Source: USDA

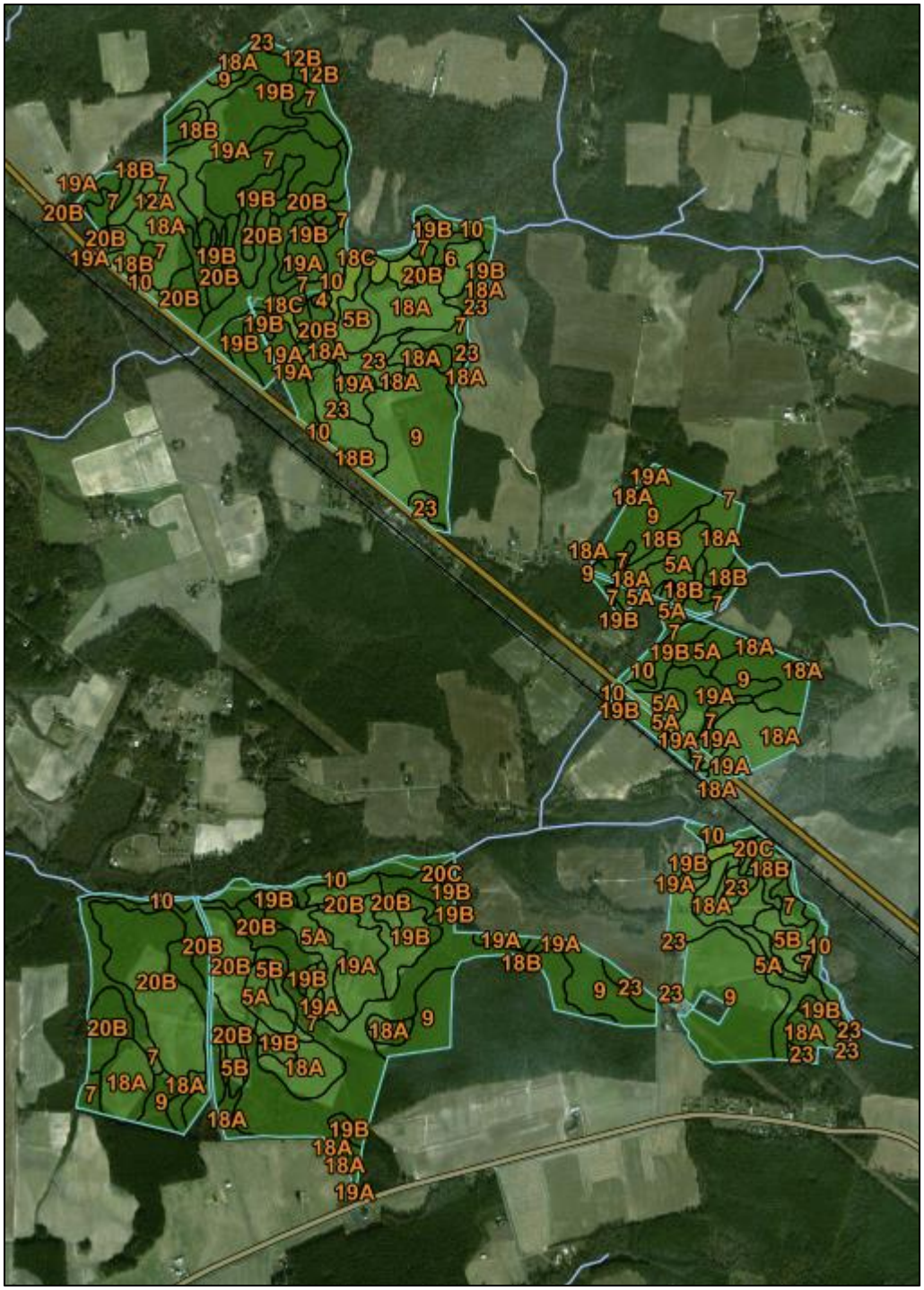


Figure 3-3: Soils map of the Carver project area, showing representative slope. Source: USDA

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4. PREVIOUS INVESTIGATIONS

This section includes a summary of all the cultural resource management events that have taken place within the project area registered at VDHR through March 2022. It also lists all previously identified architectural resources and archaeological sites located within the project area, as well as within one mile of the project area.

PREVIOUS SURVEYS RELEVANT TO THE SITE

Research at VDHR reveals that eight surveys have been conducted within one mile of the project area (Figure 4-1; Table 4-1). These surveys were conducted between 1996 and 2020. Five surveys have been conducted within the project area.

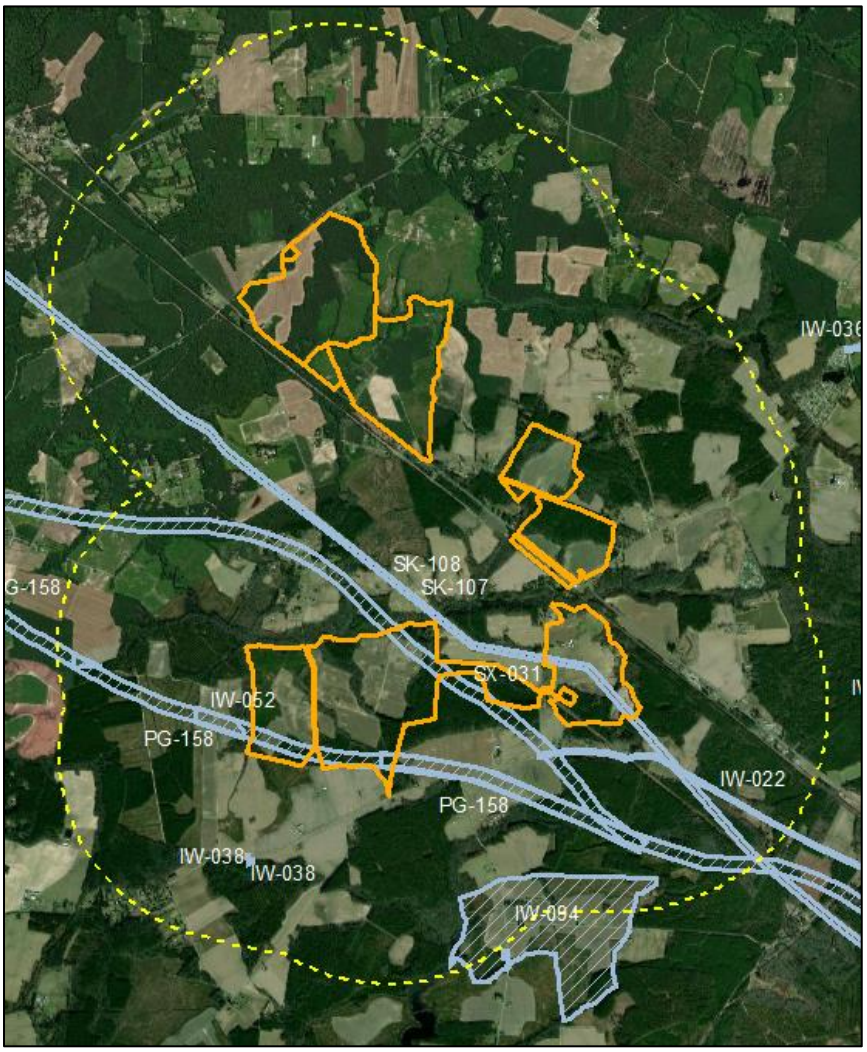


Figure 4-1: Previous surveys (gray) conducted within 1.0 mile (yellow) of the project area (orange). Source: V-CRIS

Table 4-1: Surveys conducted within a mile of the project area. Bolded surveys are within the project area.

Report Number	County	Report Title	Report Author	Author Affiliation	Report Year
PG-158	**Prince George**	**Results of the Archaeological Identification Survey of Approximately 3.18 Miles of the Proposed Route 460 PPTA Project in Isle of Wight and Southampton Counties and Supplemental Evaluation Testing at Site 44PG0504 in Prince George County, Virginia**	**Thomas Fugate**	**Gray and Pape, Inc.**	**2009**
SK-107	**Suffolk**	**A Phase I Cultural Resources Survey of the Proposed Approximately 60-Mile Dominion Virginia Power Carson-Suffolk 500 kV Transmission Line in Dinwiddie, Prince George, Sussex, Southampton, and Isle of Wight Counties, and the City of Suffolk, Virginia**	**Aimee Leithoff, Mike Klein, Sandra DeChard, Emily Lindveit, Ellen Brady**	**Cultural Resources, Inc.**	**2009**
IW-022	Isle of Wight	Phase I Cultural Resources Survey of Proposed Improvements to Route 603, in Isle of Wight County, Virginia	R. Taft Kiser, Robin L. Ryder, Mary Ellen Bushey, Douglas C. McLearen, Christopher P. Egghart, Luke Boyd	Virginia Commonwealth University Archaeology Research Center	1996
IW-038	Isle of Wight	Archaeological Survey of Two Proposed Temporary Sediment Basins Associated With the Route 603 Widening Project	Kenneth E. Stuck	Virginia Department of Transportation (Highways and Transportation)	2004
IW-052	**Isle of Wight**	**Final Letter Report: Results of the Archaeological Identification Survey of Approximately 6.06 Miles of the Proposed Route 460 PPTA Project, Isle of Wight and Southampton Counties, Virginia**	**Thomas Fugate**	**Gray and Pape, Inc.**	**2008**
SK-108	**Suffolk**	**Additional Phase I Archaeological Survey Addendum to: A Phase I Cultural Resources Survey of the Proposed Approximately 60-Mile Dominion Virginia Power Carson-Suffolk 500 kV Transmission Line in Dinwiddie ... City of Suffolk, Virginia**	**Aimee J. Leithoff, Ellen M. Brady**	**Cultural Resources, Inc.**	**2009**
SX-031	**Sussex**	**Archaeological Survey Route 460 Location Study, Sussex, Southampton, Isle of Wight Counties and City of Suffolk, Virginia**	**Lee Tippett, Megan Rupnik, Daniel Gregory, Tom Fugate**	**Archaeological Survey Route 460 Location Study, Sussex, Southampton, Isle of Wight**	**2006**

Report Number	County	Report Title	Report Author	Author Affiliation	Report Year
				Counties and City of Suffolk, Virginia	
IW-094	Isle of Wight	Phase I Cultural Resources Survey of the ±121.4-Hectare (±300-Acre) Windsor Solar Project Area, Isle of Wight County, Virginia	J. Hope Smith, Dara Friedberg	Dutton & Associates	2020

PREVIOUSLY IDENTIFIED ARCHAEOLOGICAL SITES WITHIN ONE MILE

There are 29 previously recorded archaeological sites located within one mile of the project area, three of which are located within the project area: Sites 44IW0248, 44IW0286, and 44IW0296 are located within the project area (Figure 4-2, Table 4-1). Site 44IW0248 is an eighteenth-century farmstead which has been determined not eligible for inclusion in NRHP. Sites 44IW0286 and 44IW0296 are both artifact scatters with wide occupation date ranges and have not been evaluated by DHR. Ten sites have been determined not eligible for inclusion in the NRHP. The remaining have not been evaluated.

Table 4-2: Previously identified archaeological sites located within 1.0 mile of the project area. Resources highlighted in orange are within the project area.

DHR ID	Site Types	Time Periods	Evaluation Status
44IW0253	Cemetery	20th Century (1900 - 1999)	N/A
44IW0252	Cemetery	20th Century (1900 - 1999)	N/A
44IW0024	Dwelling, single	<Null>	N/A
44IW0251	Outbuilding	Historic/Unknown	DHR Staff: Not Eligible
44IW0168	Farmstead	19th Century (1800 - 1899), 20th Century (1900 - 1999)	N/A
44IW0167	Not recorded	19th Century (1800 - 1899), 20th Century (1900 - 1999)	N/A
44IW0231	Dwelling, single	19th Century: 4th quarter (1875 - 1899), 20th Century (1900 - 1999)	DHR Staff: Not Eligible
44IW0173	Farmstead	19th Century (1800 - 1899), 20th Century (1900 - 1999)	DHR Staff: Not Eligible
44IW0257	Camp, temporary	Prehistoric/Unknown (15000 B.C. - 1606 A.D.)	DHR Staff: Not Eligible
44IW0248	Farmstead	18th Century (1700 - 1799)	DHR Staff: Not Eligible
44IW0170	Farmstead	19th Century (1800 - 1899), 20th Century (1900 - 1999)	N/A
44IW0172	Farmstead	19th Century (1800 - 1899), 20th Century (1900 - 1999)	N/A
44IW0171	Farmstead	20th Century (1900 - 1999)	N/A
44IW0174	Farmstead	Prehistoric/Unknown (15000 B.C. - 1606 A.D.), 19th Century (1800 - 1899), 20th Century (1900 - 1999)	N/A

DHR ID	Site Types	Time Periods	Evaluation Status
44IW0280	Artifact scatter	Early National Period (1790 - 1829), Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)	N/A
44IW0295	Artifact scatter	World War I to World War II (1917 - 1945), The New Dominion (1946 - 1988)	N/A
44IW0282	Artifact scatter	Early Woodland (1200 B.C. - 299 A.D.), Middle Woodland (300 - 999 A.D.)	N/A
44IW0296	Artifact scatter, Other	Late Archaic Period (3000 - 1201 B.C.), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1988)	N/A
44IW0286	Artifact scatter	Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1988)	N/A
44IW0287	Artifact scatter	Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1988)	N/A
44IW0288	Artifact scatter	Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1988)	N/A
44IW0294	Dwelling, single	Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1988)	N/A
44IW0312	Artifact scatter	Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)	DHR Staff: Not Eligible
44IW0313	Artifact scatter	Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)	DHR Staff: Not Eligible
44IW0314	Artifact scatter	Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945)	DHR Staff: Not Eligible
44IW0169	Artifact scatter, Farmstead	Antebellum Period (1830 - 1860), Civil War (1861 - 1865), Reconstruction and Growth (1866 - 1916), World War I to World War II (1917 - 1945), The New Dominion (1946 - 1991)	DHR Staff: Not Eligible
44IW0315	Artifact scatter	World War I to World War II (1917 - 1945)	DHR Staff: Not Eligible
44IW0025	Dwelling	<Null>	N/A
44IW0281	Earthworks	Civil War (1861-1865), Reconstruction and Growth (1866-1916)	N/A

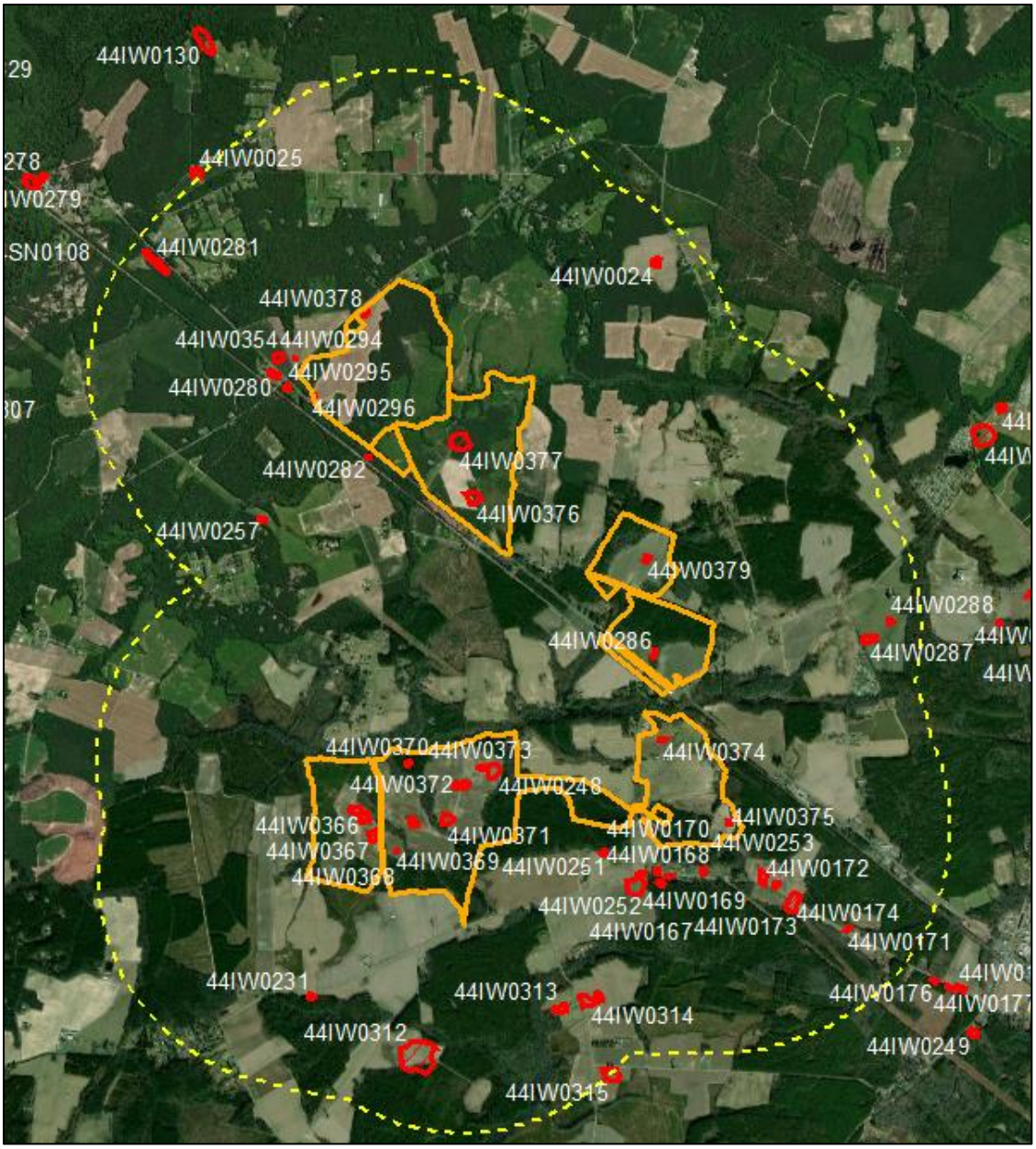


Figure 4-2: Map detailing all archaeological resources (red) within 1.0 mile (blue) of the project area (orange). Source: V-CRIS

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5. CULTURAL CONTEXT

The following section provides a brief summary of the general overarching regional prehistoric and historic themes relevant to Virginia and Isle of Wight County. The primary emphasis of this context focuses on the anthropological and material culture trends in prehistory and history, and describes how people throughout time could have left their archaeological mark on the landscape of the project area specifically. Prehistoric and historic occupation statistics and trends were analyzed, as were historic maps and available first-hand accounts which aided in establishing the appropriate cultural context for the project area as defined by the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* and the Virginia Department of Historic Resources' *How to use Historic Contexts in Virginia: A Guide for Survey, Registration, Protection, and Treatment Projects* (VDHR 2017).

PALEOINDIAN PERIOD (PRIOR TO 8000 B.C.)

Recent archaeological findings in Virginia have found the first Paleoindians are projected to have arrived in southeastern North America between 15,000 and 11,000 years ago, or approximately 13000 to 9000 B.C. (McAvoy and McAvoy 1997). Three of the earliest archaeological sites associated with Paleoindian occupation in Virginia are the Cactus Hill site (VDHR #44SX0202) located along the Nottoway River in Sussex County, the Thunderbird Site (VDHR #44WR0011) in Warren County, and the Saltville site (VDHR #44SM0037) in Smyth County. These early populations coincided with the late glacial era when sea levels were approximately 230 feet below their present-day level (Anderson et al. 1996:3). The Laurentide Ice Sheet covered much of northern North America, lowering temperatures in the region and creating an ideal environment for a boreal forest (Delcourt and Delcourt 1981). Paleoindians apparently survived in this environment through opportunistic hunting and gathering of smaller mammals, fish, and wild plants (Anderson 2001). Seasonably mobile, these Paleoindians utilized different food sources at different times of the year, an extensive subsistence pattern that required a large territory.

Accordingly, the Paleoindians may have maintained a central base camp located either in a diverse ecozone where flora and fauna were easily procured or near lithic sources that contained cryptocrystalline stone. Wider ranging satellite camps would then have been seasonally occupied to exploit other natural resources, be they lithic material, flora, or fauna (Anderson et al 1996; Daniel 1996; Binford 1980). Most Paleoindian sites are small and scattered, suggesting that the groups lived in small familial bands distributed across the landscape. The lack of status items among their archaeological remains suggests that these groups recognized little differentiation in status, and probably employed an egalitarian social structure. Ethnographic analogies suggest that Paleoindians might have maintained this rough equality by shunning aspiring leaders, and methods of property redistribution.

The Paleoindians relied upon durable and easily-shaped cryptocrystalline materials such as chert and jasper for their tools. They fashioned these rocks into a variety of instruments, among which were scrapers, gravers, and adzes. Paleoindian projectile points tended to be fluted and bifacially sharpened. Due to time and rising sea levels, many Paleoindian material culture finds are limited to isolated projectile points. Researchers differentiate the Paleoindian Period into three smaller

periods reflecting changes in the morphology of projectile points. These periods include the Early Paleoindian (9500-9000 B.C.), the Middle Paleoindian (9000-8500 B.C.), and the Late Paleoindian (8500-8000 B.C.).

During the Early Paleoindian, Paleoindians produced large fluted Clovis points, a style widespread throughout North America, which could be affixed to a spear shaft. Sites from this period are found throughout the eastern seaboard in very low densities. Regions depicting greater concentrations of these sites are in Tennessee, the Cumberland and Ohio River Valley, western South Carolina, the northern Piedmont of North Carolina, and southern Virginia (Anderson 1990:164-71; Daniel 1996; Ward and Davis 1999).

The Middle Paleoindian saw a modification of Clovis points, such as the disappearance of the fluting in some cases and the addition of "ears" at the base of the point. The appearance of these new types, such as the Cumberland, Simpson, Clovis variants, and Suwanee points, might reflect changes in subsistence patterns as the result of rising global temperatures. During this time, it is theorized that American Indians began to radiate out from their previous range of occupation to exploit resources from more distant environments (Anderson 1990; Anderson et al. 1996; Ward and Davis 1999:31).

Changes to the projectile points intensified during the final centuries of the Paleoindian Period resulting in an increased number of changes in projectile point morphology. The Dalton and Hardaway types and other variants allowed late Paleoindian peoples to hunt new species.

The Paleoindian's scattered settlement pattern and simple culture contribute to the limited number of associated sites in the region, fewer than 75 sites have been identified in present-day Virginia and only 25 have been positively identified in the entire Chesapeake (Turner 1989; Dent 1995). Those Paleoindian sites that have been located tend to be quarry sites, which groups frequently visited and areas where several bands gathered (Meltzer 1988; McAvoy 1992). Many sites were likely destroyed when warming global temperatures melted the glaciers and inundated the low-lying Paleoindian settlements.

ARCHAIC PERIOD (8000 TO 1200 B.C.)

Dramatic climatic changes beginning about 10,000 years ago prompted a reconfiguration of prehistoric people's subsistence strategies and social organization. Specifically, global temperatures began rising with the dawn of the Holocene geological period, simultaneously shrinking the glaciers and raising sea levels. In North America, the Laurentide Ice Sheet gradually receded northward, making the southeastern portion of the modern-day United States warmer and drier. The boreal forest of the Pleistocene era slowly gave way to a mixed conifer and northern hardwood forest. The area began to assume its modern-day climate and floral and faunal species. This warming also resulted in dramatic hydrological changes for coastal Virginia. As the sea level gradually climbed, the land was flooded; as a result, the lower reaches of the Susquehanna River flooded to form the Chesapeake Bay.

These climatic changes created new food sources for prehistoric people. The warmer, drier climate led to a greater biodiversity, especially floral, as spruce and fir forests gave way to nut- and fruit-

bearing trees (Aaron 2009:17). This allowed humans to rely more heavily on gathering wild plants, nuts, and berries. Indeed, archaeologists have discovered tools, such as nutting stones and pestles, for processing vegetable materials. The creation of the Chesapeake Bay, furthermore allowed Archaic people to exploit seafood, such as anadromous fish and shellfish. The appearance of shell middens during the period testifies to the importance of mollusks to the Archaic diet (Dent 1995).

To exploit these new resources, Archaic people likely intensified their seasonal movement, splitting their time between a semi-permanent base camp and smaller, dispersed hunting and gathering camps. Bands of as many as 30 people may have gathered in the base camp for part of the year, and then dispersed into "microbands," composed of a single family or two, in other seasons (Griffin 1952; Anderson and Hanson 1998; Ward and Davis 1999). The range of band movement would have occurred over relatively large regions. These larger base camps are theorized to have been located along rich environmental areas near the Fall Line or along main rivers.

New subsistence patterns also required new technologies and the adaption of existing technologies to be suitable to existing game. "The spear thrower [called an atlatl] added range and power to the hunter's arm. The axe enabled people to fell trees. The mortar and pestle made it easy to pound and grind nuts, seeds, and roots" (quoted in Aaron 2009:18). With new technologies, smaller game could be more easily hunted and plants could be processed more effectively. The resulting products of these technologies differentiate the Archaic Period into three smaller periods. The period also saw innovations in projectile point manufacturing. In a further divergence with the paleoindians who relied heavily on cryptocrystalline lithics, Archaic people utilized more materials, such as quartzite and quartz.

The Early Archaic (8000-6500 B.C.) is characterized by projectile points with corner and side-notches, rather than hafting the points to a wood shaft by fluting as the Paleoindians did. The resulting points, such as the Kirk Stemmed and Notched, Palmer Corner-Notched, Fort Nottoway, Kessell, Charleston, and Amos, are thus readily distinguishable from Paleoindian points (Custer 1990). Early Archaic people hunted caribous, elk, moose, deer, and bear (Egloff and Woodward 1992:12). Additionally, there appears to be an increase in population at this time.

The Middle Archaic (6500-3000 B.C.) is defined primarily by the appearance of stemmed projectile points which were fitted into a hold in the spear shaft. Therefore, points such as the LeCroy, Stanly, Morrow Mountain, and Guilford are diagnostic of middle Archaic assemblages. Some evidence also points to the use of grinding technology to make atlatls, or spear throwers, in this period. Mortar and pestles also began to appear during the Middle Archaic, as did axes. The ability to more easily clear forests, resulted in a change in hunting as deer, bear, turkey, and other animals came to the cleared land to eat the new, low-lying growth (Egloff and Woodward 1992:14-15).

Researchers have also pointed out that contexts from this period contain a larger amount of "expedient" stone tools, owing in part to the rapid environmental changes of the Climatic Optimum, which dates from 6000 to 2000 B.C. (Wendland and Bryson 1974; Claggett and Cable 1982; Ward and Davis 1999). These tools were makeshift and less formal, allowing their owners to use them for a wider variety of activities than tools designed for specific uses. The greater

density and disbursement of archaeological sites from this period indicates a consistent rise in American Indian populations.

By the Late Archaic (3000-1200 B.C.), a more congenial climate and more abundant food sources led to dramatic population increases, there are estimates of tens of thousands of Virginia Indians during this time (Egloff and Woodward 1992:20). To be certain, this apparent increase might be exaggerated because late Archaic people had a richer material culture than previous peoples and hence left more archaeological evidence of their existence (Klein and Klatka 1991). Nonetheless, the greater number of late Archaic sites relative to earlier periods suggests that the human population did in fact expand over the course of the Archaic Period. According to Barber et al. (1992), late Archaic sites were more than twice as numerous as middle Archaic sites. As humans occupied the land more densely, they also became more sedentary and less mobile, perhaps owing to the greater reliance on plant-based food resources compared to hunting and fishing. Late Archaic people settled along fertile flood plains (Egloff and Woodward 1992:20).

American Indians from this region may also have begun to domesticate plants such as goosefoot, squash, and gourds (Yarnell 1976:268; Chapman and Shea 1981:70). They also used squash and gourds for food storage, in addition to earthen pits (Egloff and Woodward 1992:22). The projectile point technology of the Late Archaic Period is dominated by stemmed and notched point forms, many with broad blades, likely used as projectiles or knives. These points diminish in size towards the latter portion of this period (Dent 1995; Justice 1995).

It should also be noted that prehistoric sites that consist of lithic debitage, no diagnostic artifacts, and an absence of ceramic artifacts likely date to the Archaic Period. These sites are described in the records as "Prehistoric/Unknown," however they are most likely to date to this period despite not having a specific temporal designation.

WOODLAND PERIOD (1200 B.C. TO 1600 A.D.)

The American Indians of the Woodland Period began to maintain a greater reliance on horticulture and agriculture based on the cultivation of maize, imported from Mesoamerica via the Mississippi Valley, as well as squash, beans, and other crops. This increased sedentism and the nucleating of societies (Klein and Klatka 1991; Mouer 1991). Populations during this time began to consolidate into villages near rivers and floodplains with fertile soil, favorable terrain, and access to fauna. Satellite procurement camps are far less frequent than in the Archaic Period.

The Woodland Period is defined foremost by the development of a ceramic technology for storing and cooking food. Although Archaic people had carved out vessels from soft soapstone, prehistoric Americans did not begin shaping ceramic vessels until around 1200 B.C. The earliest pottery produced on the coastal plain, the Marcey Creek Plain, and other types, in fact resembled those soapstone vessels, suggesting that they were used for similar purposes. Woodland peoples, however, modified the square- or oval-shape soapstone inspired vessels. They began decorating the pieces with cord and tempering them with soapstone and other types of grit to make them stronger. Examples include Selden Island ceramics (tempered with soapstone) and Accokeek pieces (which used sand and grit for tempering). Anthropologists divide the period up into smaller periods based on changing projectile points and ceramics, as well as settlement patterns.

The beginning of the Early Woodland (1200 B.C.-A.D. 300) is defined by the appearance of ceramics from prehistoric archaeological context. Ceremonialism associated with the burial of the dead also appears at about 500 B.C. with stone and earth burial cairns and cairn clusters in the Shenandoah Valley (McLearen 1992; Stewart 1992). Early Woodland settlements in the Piedmont region of Virginia are located along rivers as well as in interior areas and there is evidence to suggest the Piedmont areas developed a more sedentary lifestyle during this time (Klein and Klatka 1991; Mouer 1991). Many Early Woodland sites in the Piedmont are permanent or semi-permanent villages that are large and intensively occupied. This corresponds with the domestication of weedy plants such as the goosefoot and sunflower along intentionally cleared riverine areas.

During the Middle Woodland (A.D. 300-1000), there is an increase in sites along major trunk streams and estuaries as people move away from smaller tributary areas and begin to organize into larger groups (Hantman and Klein 1992). The Middle Woodland diet becomes more complex as people begin to exploit nuts, amaranth, and chenopod seeds in addition to fish, deer, waterfowl, and turkey. Corn by this time had transformed into the large ears familiar today. The bow and arrow replaced spears for hunting (Egloff and Woodward 1992:25). With more specialized crafts and increased trade came status. Evidence of rank societies emerges more clearly with the spreading of religious and ritual behavior including symbols and regional styles apparent in ceramic styles and other sociotechnic and ideotechnic artifacts.

Variance in ceramic manufacture is a hallmark of the Middle Woodland Period. Pope's Creek ceramics are associated with the beginning of this period, and Mockely ceramics with the later. Pope's Creek ceramics are tempered with medium to coarse sand, with occasional quartz inclusions, and interior scoring has also been recorded (Stephenson 1963:94; McLearen and Mouer 1989). The majority of Pope's Creek ceramics have net-impressed surfaces (Egloff and Potter 1982:99; McLearen and Mouer 1989:5). Shell-tempered Mockley ceramics first appeared around 200 A.D. in Virginia to southern Delaware. There was a variation in surface treatments for Mockley that included plain, cord-marked, and net-impressed (Egloff and Potter 1982:103; Potter 1993:62).

By the Late Woodland Period (A.D. 1000-1606), the use of domesticated plants had assumed a role of major importance in the prehistoric subsistence system. The arrival and cultivation of beans joined corn and squash as the three major crops (Egloff and Woodward 1992:26). The adoption of agriculture represented a major change in the prehistoric subsistence economy and settlement patterns. Expanses of arable land became a dominant settlement factor, and sites were located on fertile floodplain soils or, in many cases, on higher terraces or ridges adjacent to them.

Virginia Indians became more settled and developed strong identities to their local settings. They began to organize into villages and small hamlets with more substantial housing that may have been placed in rows around a plaza (Egloff and Woodward 1992:26). These villages were highly nucleated and occasionally fortified with palisades. The fortifications demonstrate inter-group conflict.

Most of the coastal Virginia Indians, with the exception of the Meherrins and the Nottoways, were Algonquian-speaking people. The majority of this population of approximately 14,000 to 21,000 were brought under the rule of Wahunsunacock (Chief Powhatan), who formed the Powhatan chiefdom by the early seventeenth century (Egloff and Woodward 2000:43).

SETTLEMENT TO SOCIETY (1607 – 1750)

Upon the arrival of Europeans to Virginia, American Indian towns and villages lined the James River (Figure 5-1). The vicinity of present-day Isle of Wight County was occupied by the Warraskoyak living in the two major villages of Mathomank, near present-day Burwell's Bay, and Mokete, at Pagan Point. Though the tribes' primary villages were along the James River, they used interior lands up to at least 20 miles inland (King 1993:1). They lived under the wider rule of Wahunsunacock, commonly known to the English as Chief Powhatan.

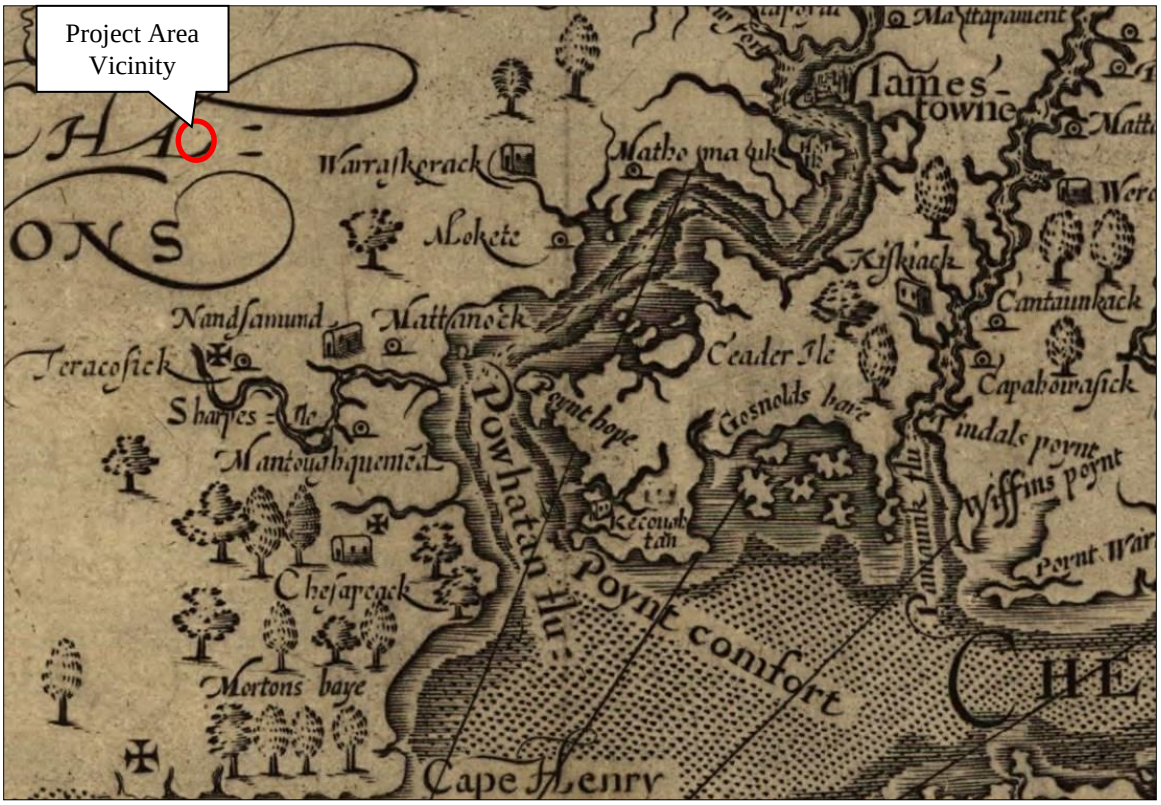


Figure 5-1: Detail of *Virginia*, by John Smith, depicting the general vicinity of the project area. Source: Library of Congress

On April 26, 1607, three ships commanded by Capt. Christopher Newport and sponsored by the proprietary London Company section of the Virginia Company made their first landfall in North America at Cape Henry, in the northeastern part of present-day Virginia Beach. The crew landed just temporarily and soon left the cape to seek a site further inland which would be more sheltered from ships of competing European countries. They sailed roughly 50 miles up the James River to where they established a fort at Jamestown in May 1607. Life at Jamestown was initially harsh, with the settlers suffering from starvation, disease, and attack by natives peoples.

In the spring of 1608, Capt. John Smith was driven by the necessity of finding food for the famished settlers. He crossed the James River into what is now Isle of Wight County and obtained bushels of corn from the Warraskoyak. While these American Indians initially acted kindly to the suffering settlers, years later they nearly killed every colonist on the south side of the James River (Morrison and Gwaltney 2006). The new settlers made some attempts to make use of the land to aid in their survival and in 1608 they began keeping hogs on Hog Island; a garrison was also placed on the island to warn Jamestown of approaching European enemies.

The Virginia Company's search for an income producing product in the colony came to fruition with John Rolfe's successful experimentation with tobacco in the early 1610s. The crop became the dominant crop of the colony and determined the pattern of nearly every aspect of life, encompassing the economy, the cultural landscape, and social relations (Kulikoff 1986; Moore 1976). Increased growth of the labor intensive crop also led to more land hungry planters and increased use of indentured servants followed by enslaved individuals.

Within a few decades, additional settlers arrived and conditions in Virginia became more favorable. Settlement spread out through the area with homes and plantations clustered along the banks of rivers and other navigable streams (Turner 1984:101-115). The first English settlement in the future Isle of Wight County was initiated by Capt. Christopher Lawne and Sir Richard Worsely in 1619. They settled on the south side of the James River at Lawne's Creek, now the dividing line of Isle of Wight and Surry counties. Initially known as Lawne's Plantation, the London Company changed the name of the area to Isle of Wight Plantation in 1625. Throughout the early 1620s, settlements ranged along the south side of the James River such as Warrsquoyacke (also known as Edward Bennett's Plantation) and Basse's Choice on the Pagan River (Morrison and Gwaltney 2006). While the south side of the James River was rich, the lands were fringed by swamps and the harbors were fewer and shallower making the area a bit less desirable (Rouse 1968:17). The project area would have remained the frontier.

The continued spreading of European settlement increasingly stressed relations between them and American Indians. Wahunsunacock died in 1619 and control over the chiefdom was passed to his brother Opechancanough who planned to eradicate the English from Virginia (Tyler 1990:13). The murder of the Nemattanew in early March 1622 provided pretext for a mass attack. On the morning of March 22, members of the Powhatan Confederacy and the Chickahominy Tribe killed English colonists along a 70-mile stretch on both sides of the James River. The result was a loss of more than a quarter of the total European population. By this time there had been 1,240 new residents of Virginia, so the massacre resulted in a loss of approximately 348 people; 53 of those killed lived in Isle of Wight County. Some English were saved through the actions of the Virginia Indian Chanco who warned Richard Pace, a resident of Surry County (King 1993:4). For the next decade, Virginia was in a state of open warfare between the two entities.

Despite this setback, the colonists persevered and completed expeditions against the American Indians taking all land and resources they were able. English settlement continued to spread and some individuals were able to gain vast tracts of land, first along the major navigable waterways and then on the interior lands. In Virginia, the head right system was followed in the early distribution of land. During the first hundred years of settlement, a grant of fifty acres was given for the importation of every emigrant (Morrison and Gwaltney 2006). In this way, the size of land

granted varied greatly. Using this system, many patents were distributed. The river front on the James was largely settled in the 1630s (Atkins 2008).

By 1634, the population of the Virginia Colony had grown to the point that King Charles I directed the formation of eight shires or counties. One of these counties was Warroaquyoake, now Isle of Wight. To the east was Nansemond County. The boundary between the two counties was disputed until 1674 when the Virginia House of Burgesses established "a southwest by south line be designed, runned and plainly marked from the river side of the plantation of Hayes, extending to the creek at or near the plantation called Nevill Oyster Bank; thence a line or lines up Col Pitt's creek to the head of his lands; thence in a southwest half a point westerly line" (quoted in Morrison and Gwaltney 2006). To the west was James City County, which spanned the James River. This became Surry County in 1652.

The region of the project area is also home to a change in drainage to the James River and to the Blackwater River. Waterways draining into the Blackwater River drained into the Albemarle Sound in North Carolina. The Sound, unlike the Chesapeake Bay, had no ports which placed a constraint on settlement and early planters trying to get products to markets. It is likely for this reason that the land was worth less than that closer to the James River. In the 1690s, the average land values were 51.1 pounds of tobacco per acre along the James and only 16.9 pounds around the Blackwater (Atkins 2008). Land was first settled along the James River and its tributaries after which colonists were forced to move farther inland (Figure 5-2).

The colony and county continued to grow in population. This growth saved the colony when Opechancanough planned a second uprising in 1644. Although more than 500 settlers lost their lives, by this time the colony was well established and the loss did not seriously threaten its survival (Whittenburg and Coski 1989:21). The resulting treaty, Treaty of 1646, saw the loss of Virginia Indian's land between the York and Blackwater rivers (Egloff and Woodward 2000:45).

Lands on the south side of the James River had ample forests. This would lead to a second good produced by the region: timber. Timber was exported as early as the European settling of the colony when Captain Newport took oak poles back to England for ships' masts in 1607 (Rouse 1968:33). This industry continues to the present day. The original use of Hog Island to keep hogs portended to another industry in the region: the raising of hogs. Many dwellings had large, deep, brick cellars which could be used for the storage of bacon and lard, among other things. As such, a trade in bacon began and continued to the present. Bacon was traded in the West Indies for sugar, coffee, and rum (Morrison and Gwaltney 2006).

The relative calm that had settled within the colony would soon be disrupted with Bacon's Rebellion in 1676. Nathaniel Bacon and his followers led a revolt against their perceived aggressors, American Indians, and the Governor of Virginia, Sir William Berkeley. A later owner of a portion of the project area would participate in the Rebellion. William West was "a rebel absconding, who took up arms against the Indians by whom his father had been most barbarously murdered" (Boddie 1938:162). Unrest would repeat in the region in the early eighteenth century. Slave insurrections were planned in 1709 and 1710 in Surry and Isle of Wight counties. In the 1709 plan, the foiled uprising involved both enslaved Africans and American Indians (Holloway n.d.).

However, despite unrest between European settlers and American Indians, land continued to be granted and the first grants in the general vicinity of the project area occurred in the late seventeenth century. It appears that the project area was part of land granted to several individuals. This includes Robert Ruffin and William Oldis with their 2,050 acres patented in 1669 and again in 1674; Col. Robert Pitt, Capt. Joseph Bridger, and William Burgh with their combined 3,000 acres of land patents in 1664; and George Peirce with his 2,500 acres patented in 1681 (Figure 5-3). Later, William West and Capt. Henry Applewhaite would purchase portions of these patents (*The Southern Roots* 2015).

The growth of population in the area is evidenced by the opening of an Episcopal church circa 1700. This early church, known as Isle of Wight Chapel, operated until the American Revolution and was eventually replaced by Antioch Congregational Christian Church (King 1993:317). With increased population throughout the region, new counties were established. Southampton County formed from Isle of Wight in 1749 with the Blackwater River serving as its boundary.



Figure 5-2: Detail of *Virginia and Maryland as it is planted and inhabited this present year 1670* depicting the vicinity of the project area. Source: Library of Congress

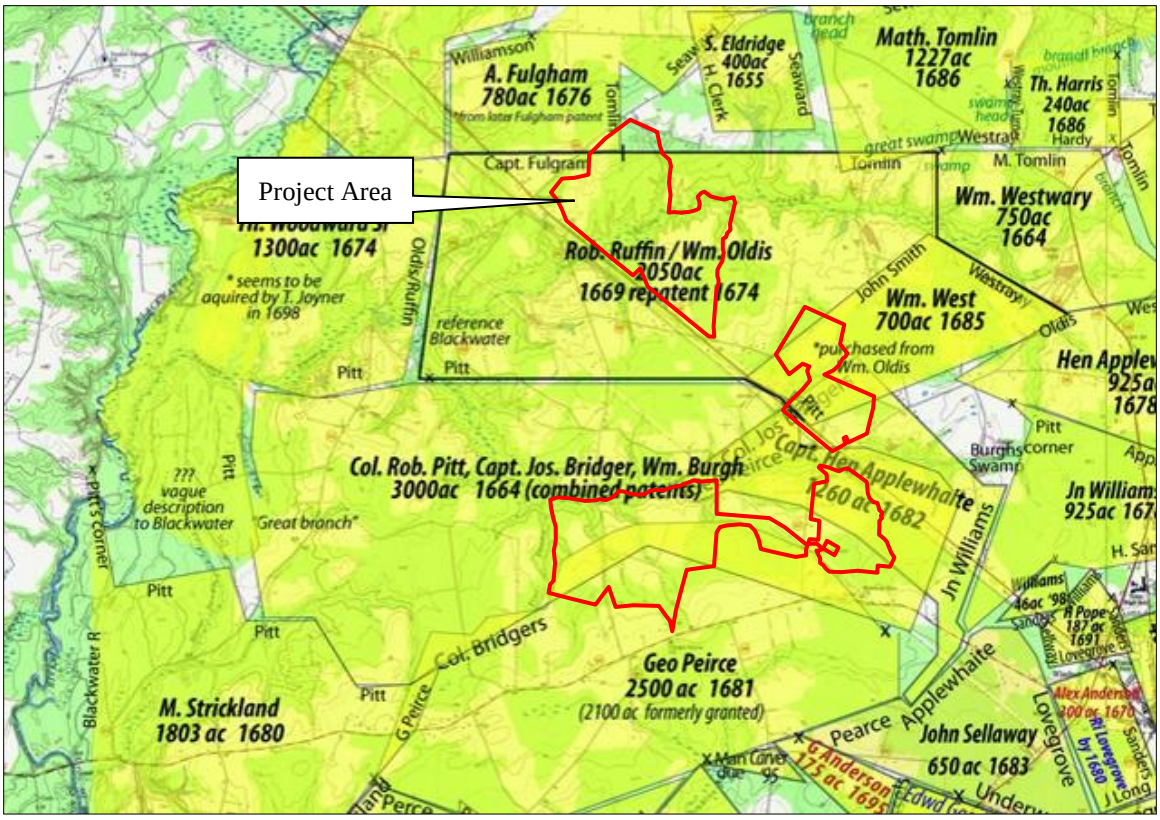


Figure 5-3: Map of early land grants in Isle of Wight County depicting the project area. Source: *The Southern Roots*

COLONY TO NATION (1750 – 1789)

By the mid-eighteenth century, the population continued to increase and colonists moved inland more. Smithfield, a settlement since circa 1740, officially became a town in 1752 and the main stage road from Norfolk to Richmond passed through it (Morrison and Gwaltney 2006).

The economy continued to grow as additional agricultural land was cleared and cultivated. Tobacco continued to be the principal crop during this period, however as the century entered the fourth quarter the tobacco economy began to falter. Severe soil depletion from continuous cultivation of tobacco, particularly in the sandy soils in the county that were not conducive for growing tobacco, coupled with the collapse of the European tobacco market precipitated a shift in the economy. Farmers began to focus more on corn, grains, and orchards for the production of liquors such as apple and peach brandy. The farms in Isle of Wight County were typically between 500 to 1,700 acres (David 2007:9). According to V-CRIS records, there was possibly an eighteenth century farm within the project area (VDHR #44IW0248). Additionally, a Works Progress Administration survey of historic properties indicate that Hall Home was constructed circa 1786 within or near the project area. This records also makes note of an old burying ground that had no markers and was under cultivation at the time of the survey (Jordan 1937).

To get their goods to market, in addition to waterways there were two early major routes within the County. Courthouse Highway (Route 258) connected Smithfield to the south end of the County

along its approximate midpoint. The Old Stage Road (Route 10) connected Smithfield to Surry County (David 2007:9).

While the market for crops grown in Virginia and throughout America was in high demand in European markets, tensions between the colonies and England began to put a strain on trade. At the end of the Seven Years' War (or the French and Indian War in North America) in 1763, the British government had an immense amount of debt. To pay it, Parliament imposed heavy taxes on its subjects and tightened the administration of trade and navigation acts (Salmon 1983:22). These actions sparked a strong response from the colonies. In 1774, the Virginia Convention adopted resolves against the importation of British goods and the importation of slaves. It also required each county to form a volunteer company of cavalry or infantry to prepare for an armed conflict.

Once the American Revolution was underway, it did not impact Isle of Wight County as it did nearby port towns, like Norfolk and Portsmouth. In addition to the "725 men of military age" who joined the fight, residents of the county provided relief vessels and financed privateering vessels (King 1993: 64; David 2007:9). Additionally, the seventeenth century fort on Burwell Bay was fortified and renamed Fort Boykin (David 2007:9). The British passed through the county twice under British Cavalry Colonel Tarleton. He and his men made a raid on Smithfield with the intent to destroy the records; the records were previously removed. The British left a wake of destruction wherever they went (Morrison and Gwaltney 2006).

EARLY NATIONAL PERIOD (1789 – 1830)

Following American independence, Virginia entered a period of considerable change. The intensive tobacco cultivation previously pursued in the area had succeeded in severely depleting the area's soils of much-needed nutrients, making the crop unprofitable and leading farmers to explore other options. Over time, farmers in southeast Virginia turned to corn and grains, cotton, orchards, livestock, and finally peanuts and soybeans (King 1993:192).

In addition to diversification, a more scientific method of farming was adopted to help restore the soil's nutritive qualities. In his 1817 series of essays entitled *Arator*, Caroline County's John Taylor demonstrated the benefits of four-field crop rotation, in which soils could be improved significantly by rotating corn, wheat, fertilizer, and clover. Similarly, Edmund Ruffin, of Prince George, Hanover, and Amelia counties, experimented with crop rotation, fertilizers, and farm machinery. In the early 1820s, he publicized the effectiveness of marl in reducing soil acidity, a technique that could triple the productivity of Tidewater soils. Plantations began to be replaced by smaller-scale farmsteads that were increasingly situated along the system of interior roads in the county. These changes would strengthen central Virginia's economy (McCartney 2009). The value of farmland in the region increased dramatically in the early nineteenth century. In the Antebellum Period, these practices had become accepted and widely used and by 1860 Virginia was in the best condition agriculturally of her history according to historian Avery O. Craven (Agee 1969:3).

The almost exclusively agrarian society was beginning to accommodate urban centers and small hamlets, although farming continued to be the primary means of livelihood (Traceries 1993).

While the population remained relatively steady, there was a shift to the southern half of the county as people were enticed by the open lands and inland roadways.

At the first federal census in 1790, Isle of Wight County had 9,028 residents. During this period the population rose slightly to 10,517, approximately 42 percent of whom were enslaves. There was also a growing free black population in the county (USCB). Throughout the nation, "Black labor became the foundation stone not only of the Southern social structure, but of Northern manufacture and commerce, of the English factory system, of European commerce, of buying and selling on a worldwide scale" (DuBois 2007).

By 1818, there was a post office in the present-day town of Windsor, east of the project area. According to V-CRIS records, Clements Farm was constructed within a portion of the project area circa 1820 (VDHR #046-5112). Adjacent to the project area, Antioch Congregational Christian Church (VDHR #046-5154), on Antioch Road, opened in 1828. Antioch Church would be the mother church for multiple churches in the county (King 1993:317, 432). With this shifting population, the distance to the courthouse in Smithfield proved to be too great and the courthouse was moved to a more central location in 1800. The new town, Isle of Wight, was located along Courthouse Highway, approximately six miles northeast of the project area (Figure 5-4) (David 2007:9-10).

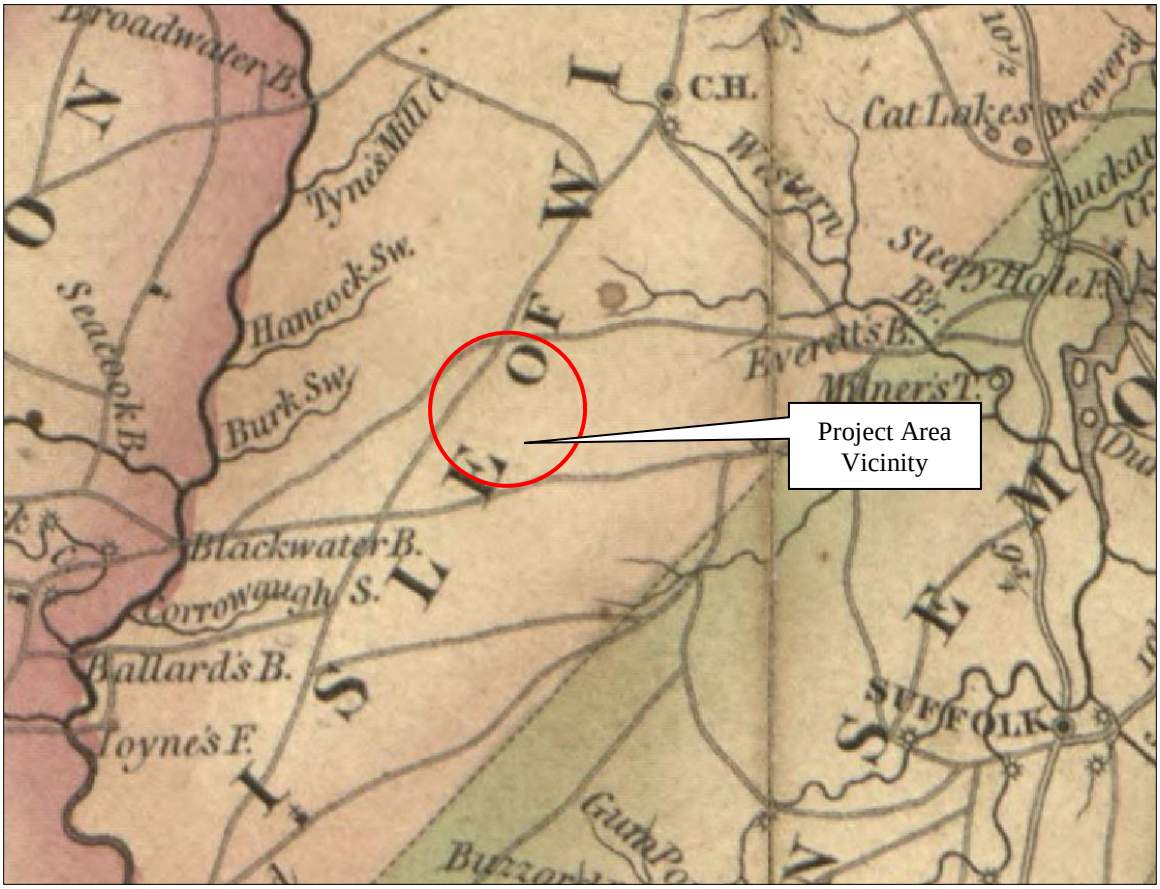


Figure 5-4: Detail of *A map of the state of Virginia*, 1827, depicting the vicinity of the project area. Source: Library of Congress

ANTEBELLUM PERIOD (1830 – 1860)

By the 1830s, a lasting migration from older settled regions of Virginia to lands opening in the west and an agricultural depression affected area's commerce and population. Between 1830 and 1850, the population of Isle of Wight County decreased 11 percent (USCB). Despite the drop in population, the enslaved and free black population remained about 50 percent of the total population. The high slave population led to unease and in 1831 there was an insurrection in nearby Southampton County known as Nat Turner's Rebellion. Troops from Isle of Wight, Nansemond, and Surry counties guarded the borders of the counties to prevent an escape of the insurgents to the Dismal Swamp (Drewry 1900:83). The insurrection prompted scared white citizens to strengthen rules regarding enslaved African Americans and free blacks (Atkins 2008).

Approximately 90 percent of the total population was involved in agriculture and identified as farmers (David 2007:10). The diversification of crops throughout the Commonwealth continued and by 1859 Virginia was producing only 28.4 percent of the nation's tobacco (Agee 1969:21). Crops that took its place of tobacco in southeast Virginia included cotton, corn, and peanuts. Grains and corn grown in the region were processed at mills. Before the Civil War, peanuts, also known as "goober peas" or "ground peas" were little known outside of the southern states (Morrison and Gwaltney 2006). Isle of Wight's first peanut export was in 1849; the county would eventually become the center of the peanut belt (David 2007:10). Additionally, the ham and bacon industry continued growing. Before the coming of the railroad, the bacon trade reached out 30 to 40 miles into surrounding counties and hogs were driven in by foot from as far away as Kentucky, Tennessee, and North Carolina (Morrison and Gwaltney 2006). The railroad would create a bigger market.

In 1833, the Portsmouth and Weldon Railroad was organized; it ran in the southern portion of the county. The Norfolk and Petersburg Railroad was chartered in 1851 and was completed in 1858. Land for this line was purchased in 1854. When it became apparent that a station would be erected in Corrowaugh, a couple of local residents purchased the surrounding land for the establishment of a town and Windsor became a railroad stop. With the railroad crops could be sent out to markets much quicker than by water and large quantities of lumber, bacon, and peanuts were sent to market (King 1993).

Forests in Isle of Wight County were rich with tall cedar, cypress, pine, oak, and other hardwoods. Lumbering prospered in the region and forests could be quickly cleared with products transferred to the large market in Norfolk. Homes were built, and families began to establish themselves in the growing community of Windsor (King 1993:122). The town of Zuni also grew around a passenger depot for the Norfolk and Western Railroad northwest of the project area (Monroe et al. 2005:48).

A Civil War era map depicts a project area that consisted of a mixture of forested land and cleared fields (Figure 5-5). The waterways of Burnt Mills Swamp and Antioch Swamp crossed or formed borders to the project area. Though early historical mapping can prove difficult in overlaying with modern maps due to artistic license and changes in road and waterway alignments, this 1864 map depicts buildings within and near the project area. Several homes were constructed during this period within and outside of the project area. This includes a dwelling at 23255 Barrett Town Road

(VDHR #046-5089) constructed circa 1850, which roughly corresponds with a building illustrated in the southern portion of the project area, and the James R. Cobb Farm (VDHR #046-0116) constructed circa 1830, which corresponds to the Roberts house near the southern portion of the project area. In the northern portion of the project area were two dwellings, one of which was identified as associated with the Stevens family. There is also a building within or near the center portion of the project area

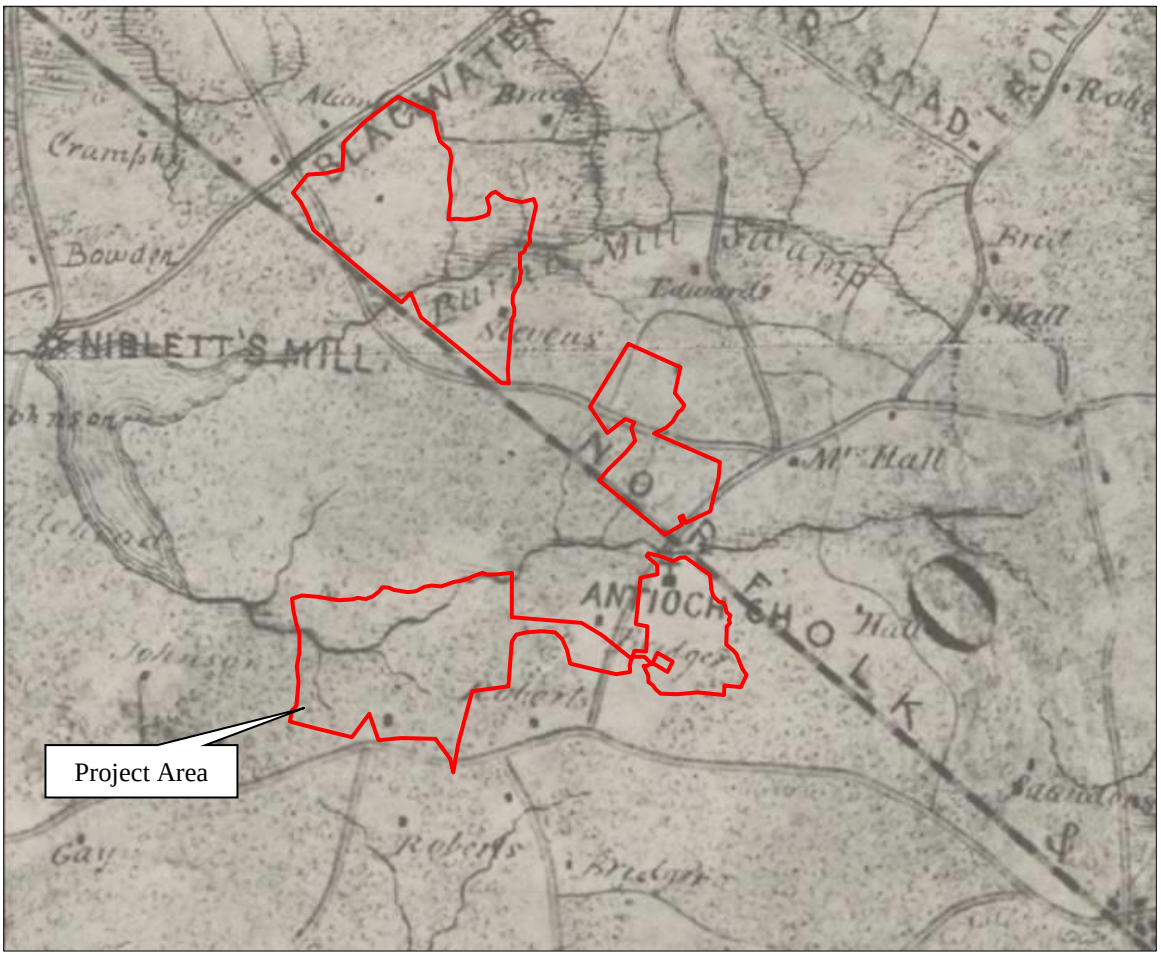


Figure 5-5: Detail of *Map of Isle of Wight and part of Nansemond*, 1864, depicting the project area. Source: Library of Congress

CIVIL WAR (1861 – 1865)

Prior to the Civil War, Isle of Wight County had the eighth largest number of free blacks of the 148 counties in the state of Virginia. It ranked 52nd among the number of slaves. When the vote for secession came to the county, it was unanimously approved (Morrison and Gwaltney 2006). On the shoreline of Isle of Wight County, two forts were constructed or reinstituted during the war, Fort Huger and Fort Boykin. Men of Isle of Wight County fought for the Confederacy and the Isle of Wight Grays formed under the command of Captain Watkins (King 1993:122).

No major battles took place in the county, although skirmishes did occur. As depicted on a 1906 map, there were a few skirmishes in the vicinity of the project area (Figure 5-6). In spring 1863,

the New York 99th Infantry took an active role in the defense of Suffolk and in May of that year there was a skirmish at Antioch Church (NYSDMNA n.d.). Throughout the war, Confederates defended the Blackwater River and there were two skirmishes at the bridge of Blackwater Road over the river in 1862 and 1863. In both cases, Federals drove Confederates away but did not destroy the bridge (VDHR 2000).

Additionally, Union forces occupied many areas of the state including in Isle of Wight County and, at times, Windsor:

> The Northern occupiers claimed this territory as their own, and so it was, in a strictly military sense: Union forces regularly patrolled it, could project their power at will anywhere within it, and were able to exclude Confederate power and authority from it (aside from the occasional Rebel cavalry). By that reckoning, the citizen there were – and they considered themselves to be – in enemy hands (quoted in Wills 2001:204).

According to one Union soldier "We've burned their fences, destroyed their railroad and thus lessened the value of their property" (quoted in Wills 2001:118). The time Federals spent in the area created a lasting impression on residents.

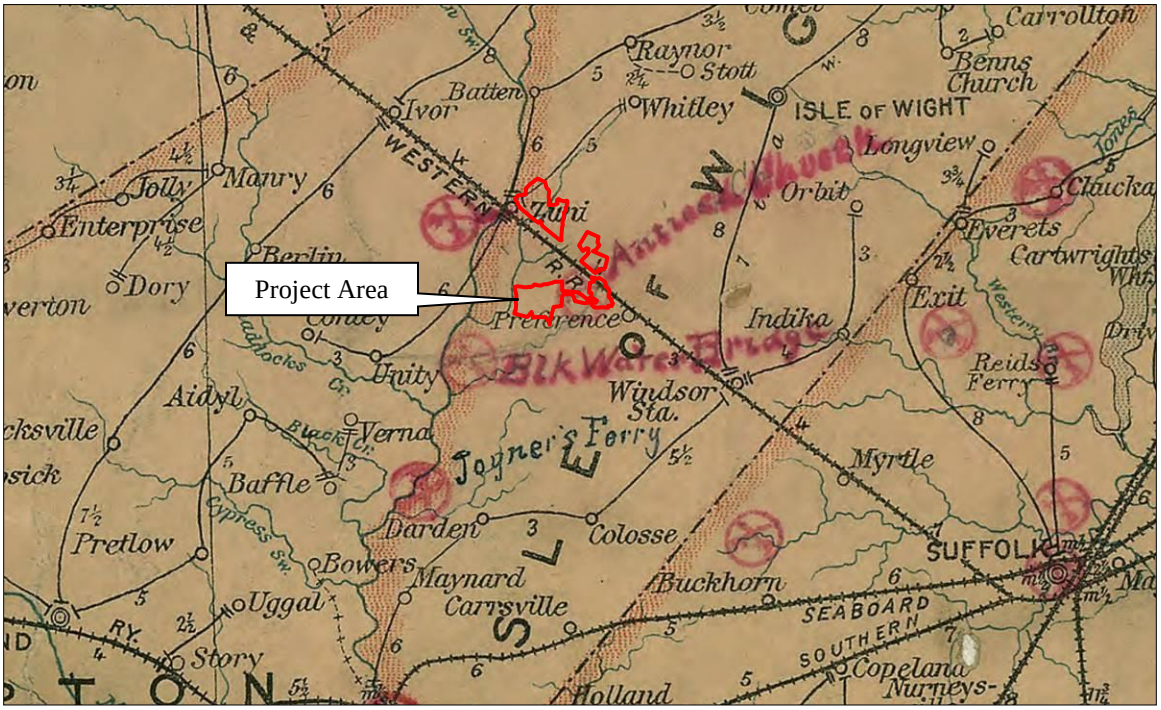


Figure 5-6: Detail of *Post route map of the states of Virginia and West Virginia.*, 1906, depicting the project area and the marked skirmishes. Source: Library of Congress

RECONSTRUCTION AND GROWTH (1865 – 1917)

The economy of Isle of Wight County, like the rest of Virginia, was devastated by the War Between the States. The land had been ransacked by occupying armies leaving farms and properties destroyed. There was an immense loss of draft animals and severe damage to farms,

mills, and manufacturing establishments. Mill-dams were cut, ponds drained, and railroad depots, bridges, and trestles burned. Farm animals in the track of armies had been seized or killed and other food products taken (Head 1908). Land was nearly worthless and many of the owners no longer had capital, farm animals, or farming tools. As white local farmers coped with labor shortages from the emancipation of their labor force and lack of funds to buy necessary materials, many fell into debt and were forced to forfeit their real and personal property or declare bankruptcy (McCartney 2009).

The biggest change in the south was the new freedom of thousands of enslaved persons. Many newly freed slaves stayed in the county as sharecroppers or tenant farmers and later as land owners. Sharecropping and tenancy became a way of life for much of rural Virginia. As these Americans began to put their lives back together, churches and schools began to be organized. South of the project area, local African Americans organized Morning Star Church in 1886 on land donated for this use (King 1993:320).

With its recovery, Virginia adopted a new constitution which provided for public schools. By 1871, Isle of Wight had 25 schools: 20 white and 5 "colored" (*The Teachers Guide* n.d.). Outside of the project area, the Faulk House, which had been constructed circa 1900 on Blackwater Road, became the Gay School and initially educated white children in the area. Sometime before 1940, this changed and the school was used for the education of African American children (V-CRIS #046-5029).

The longstanding agricultural economy of Tidewater Virginia began to recover. The production of peanuts increased, their cultivation improved, and, by the aid of special implements, their production was cheapened. The value of the crop was estimated to be not less than three million dollars for the nuts alone (Morrison and Gwaltney 2006). P.D. Gwaltney and Company was created in 1870 for the shipping of ham and peanuts. The company grew dramatically in the late nineteenth century and by 1898 it had become the largest peanut company in the world (David 2007:13). Added to this is the value of the peanut vines in serving as a forage crop for horses and cattle and nuts on the ground for hogs (Morrison and Gwaltney 2006).

In addition to peanuts, the county produced oats, potatoes, fruits, vegetables, and oysters (Morrison and Gwaltney 2006). Farmers were able to get goods to market on the newly repaired rail line. Following the war, the Norfolk and Petersburg Railroad was rebuilt and its stations repaired; the line was also extended west to the Mississippi Valley. The Atlantic, Mississippi and Ohio Railroad Company was formed from a merger between the Norfolk and Petersburg and other railroads in 1872. From this, the Norfolk and Western was organized in 1881 (Bamann and Hall 2006:3/14).

Timbering also prospered during this period with the creation of Camp Manufacturing Company at the south end of the County, opposite Franklin. Other lumber companies included Watkins Lumber Company, Cumberland Lumber Company, and Kirk Lumber Company (David 2007:13).

Finally, Smithfield's early trade in bacon and ham gave rise to attention in the feeding and slaughtering of hogs and curing of bacon. In the early twentieth century, Smithfield's shipment of cured hams was about 40,000 (Morrison and Gwaltney 2007). With these important industries, the

financial condition of Isle of Wight County improved at the closing of the nineteenth century and population between 1890 and 1900 increased 16 percent to 13,102 residents (USCB).

As the area recovered, by the turn of the century residents of Windsor felt that it should officially be a town. It was chartered in 1902 and Windsor Station became the Town of Windsor (History of Windsor n.d.) (Figure 5-7). With all of the early improvements made to the town, it was flourishing by 1907:

> It has a large, flourishing trade, many thousands bushels of peanuts and other farm products being annually shipped, and its people are well known for their hospitality.
>
> …It has four general stores, two groceries, two barber shops, one shoemaker, one millinery, three churches (Methodist, Baptist, and Christian), one high school, one peanut factory, one planning mill, two eating houses, one blacksmith shop, one bank, two telephone offices, one telegraph office (Western Union), two undertaking establishments, one livery stable, one furniture shop and one hotel.
>
> Its population is over four hundred and the value of its real and personal property is $800,000 and the aggregate amount of its annual business $250,000 (quoted in King 1993:126).

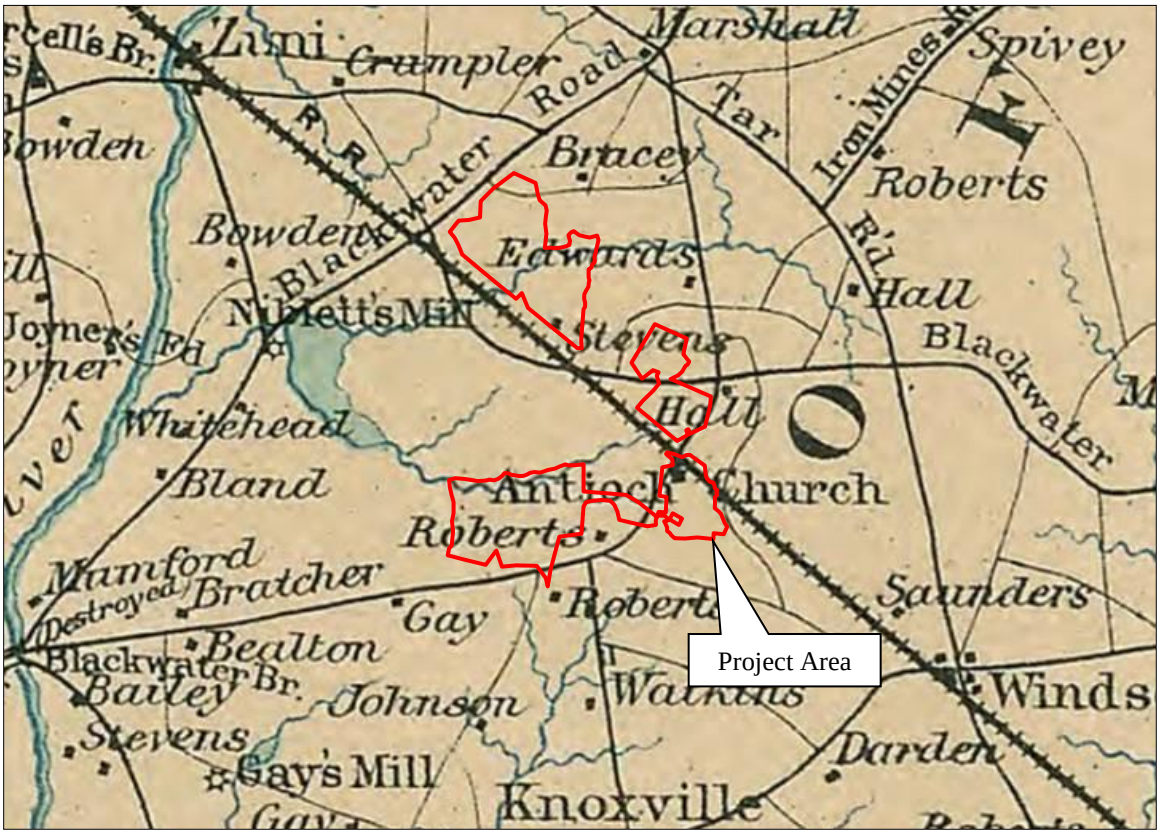


Figure 5-7: Detail of *Preliminary map of a part of the south side of James River, Va.,* 1891, depicting the project area. Source: Library of Congress

WORLD WAR I TO WORLD WAR II (1917 – 1945)

As the twentieth century continued, the number of farms in the Isle of Wight County steadily increased. The peanut industry took a downfall in 1921 when P.D. Gwaltney's factories were destroyed by fire. Although processing of the legume ended in Smithfield, neighboring Suffolk became a major peanut processing hub with the growth of Planters Peanuts (David 2007:18). With the loss of the peanut factories, in Isle of Wight County the primary industry transitioned to meat packing, most notably of ham (Morrison and Gwaltney 2007).

Additionally, during this time many farms were subdivided and new single family homes were constructed or new dwellings replaced older homes on farms (David 2007:18). As technological and transportation innovations were made, changes were brought to Windsor. Electricity came into the Town of Windsor in 1923 as did telephone service; a transmission line crosses the project area. The first gas station in Windsor was erected in 1924 (King 1993:127).

While the Great Depression affected urban areas by devastating businesses, the agricultural production of rural counties was not subjected to the same issues. The number of farms actually increased by six percent between 1930 and 1935. Agriculture remained the economic mainstay of Isle of Wight County and its commercial centers provided processing facilities for the products and access to export goods (David 2007:18).

A number of important transportation improvements happened during this period. In 1927, the James River Bridge was completed connecting Isle of Wight County with Newport News and Hampton. To ease travel as automobiles became more popular, roads were paved, beginning with Routes 665 and 667 in 1932 and 1933. The Commonwealth of Virginia would also build Highway 460, or Windsor Boulevard, which connects Suffolk, Windsor, and Petersburg (Monroe et al. 2005:51). At the new road, Lewis C. Johnson built a general store and three tourist cabins within the project area for travelers (V-CRIS #046-5101).

During World War II, with the proximity of Isle of Wight County to the military bases in southeast Virginia citizens were subjected to air raid warnings. An anti-aircraft gun site was set up at the northern end of King's Highway Bridge and the rail sidings near Windsor were used as a staging ground for munitions (Bradshaw n.d.; Monroe et al. 2005:51).

Topographic maps from this period illustrate the project area which remained a mix of forested land and fields that were crossed by minor drives (Figures 5-8 and 5-9). Buildings lined the major roadways in and out of the project area. During this period there were buildings in all sections of the project area. By 1945, a transmission line crossed the project area.

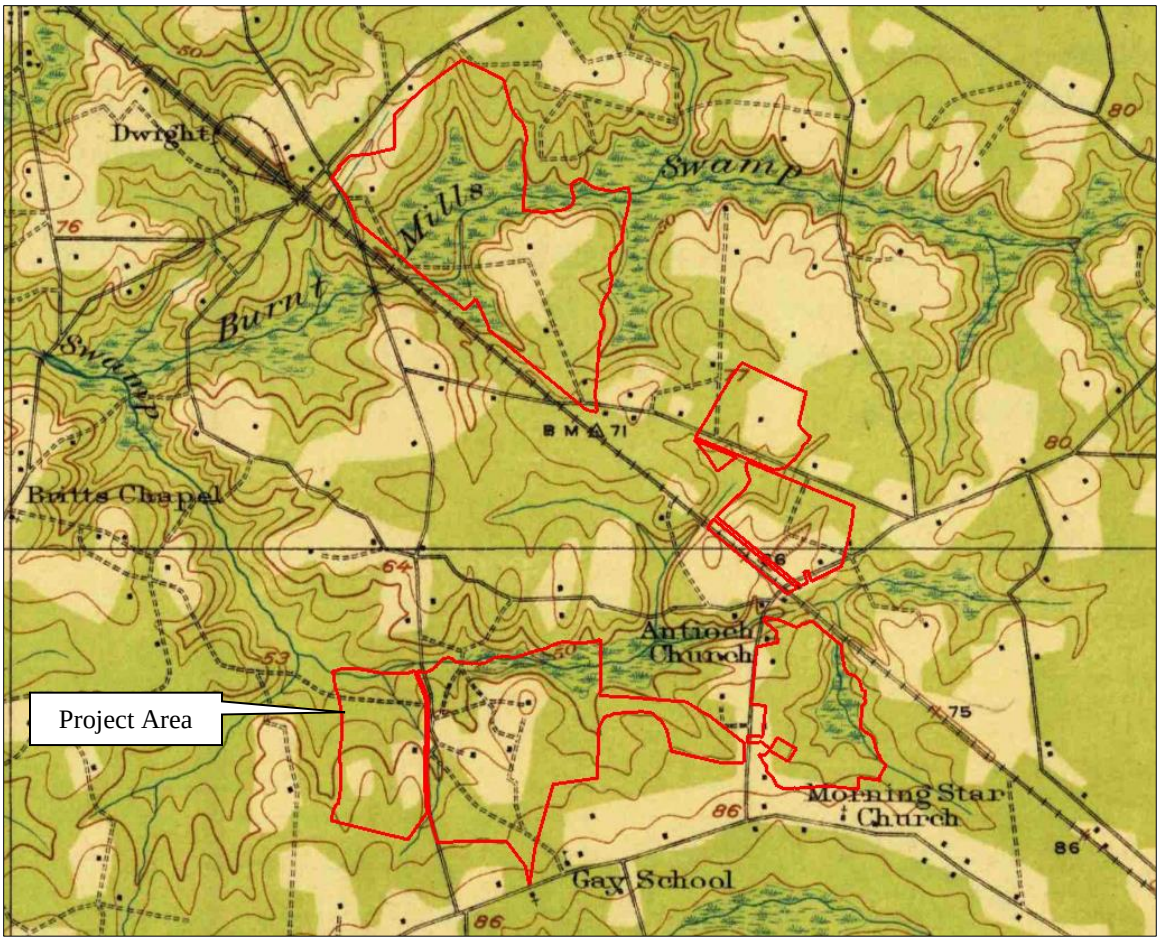


Figure 5-8: Detail of 1920 *Ivor Quadrangle*, depicting the project area. Source: USGS

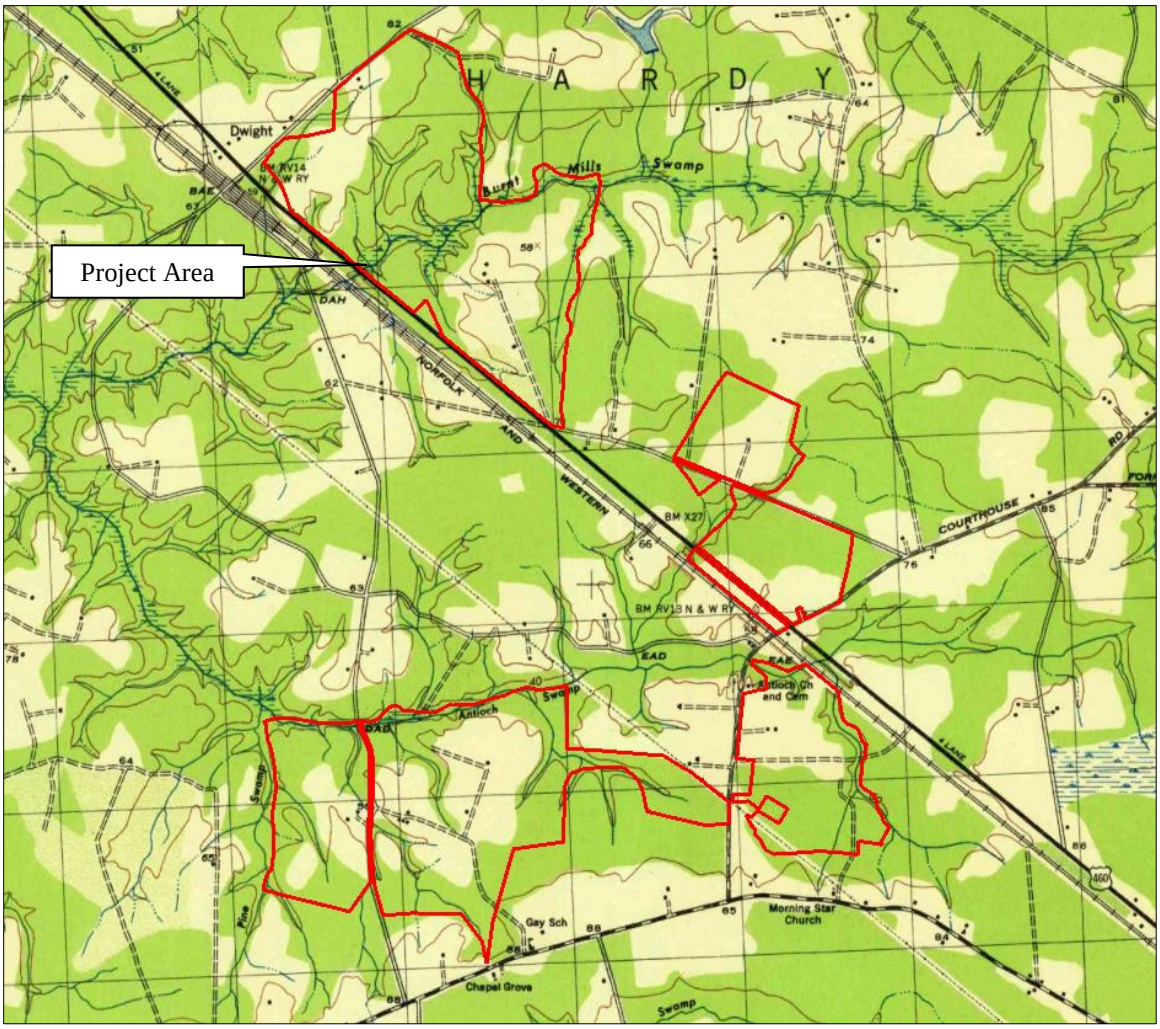


Figure 5-9: Detail of 1944 *Zuni Quadrangle*, depicting the project area. Source: USGS

NEW DOMINION (1945 – PRESENT)

The end of World War II brought with it a building boom that would begin to change the character of the earlier farmsteads within Isle of Wight County. Smithfield to the north became a bedroom community for the now burgeoning Newport News, Portsmouth, and Norfolk and developmental pressure was placed on farmsteads (David 2007:19). In the second half of the twentieth century, the Town of Windsor was improved and expanded as it annexed 2.82 square miles of surrounding land (History of Windsor n.d.). When schools around Windsor were consolidated, the Gay School was abandoned (Lowe 2003; V-CRIS #046-5029).

The face of agriculture also began to change. By the end of World War II, Virginia was no longer the leading producer of peanuts, a situation that would continue into the twenty-first century. In 2002, the end of government support and allotment forced many smaller farmers out of business. While peanuts are still a force in Western Tidewater, and they continued to be the most reliably profitable crop even for smaller-scale producers, China and Brazil are now the dominant players in the global peanut market (Bearinger n.d.).

Conversely, the meat packing and timbering industries in Isle of Wight County would continue to grow and the county would become home to two Fortune 500 companies: Smithfield Foods and International Paper Company. Despite all of the changes, agriculture continues to be an economic mainstay in Isle of Wight County with important crops being cotton, soy, and of course peanuts (Morrison and Gwaltney 2006). In the second half of the twentieth century and beyond, the project area remained relatively unchanged though there is evidence of logging in some portions (Figures 5-10 through 5-12).

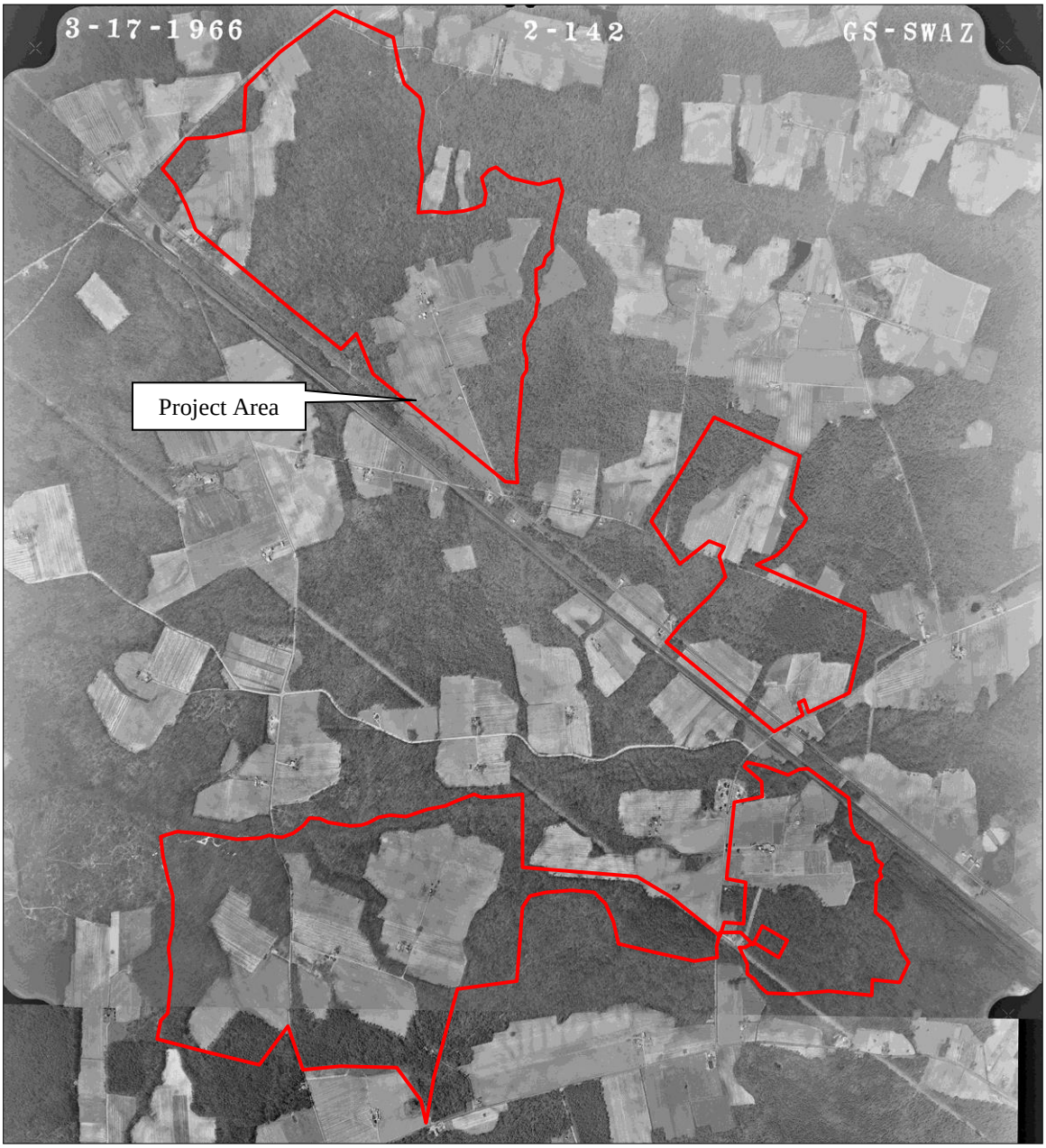


Figure 5-10: Detail of a 1966 aerial depicting the project area. Source: USGS

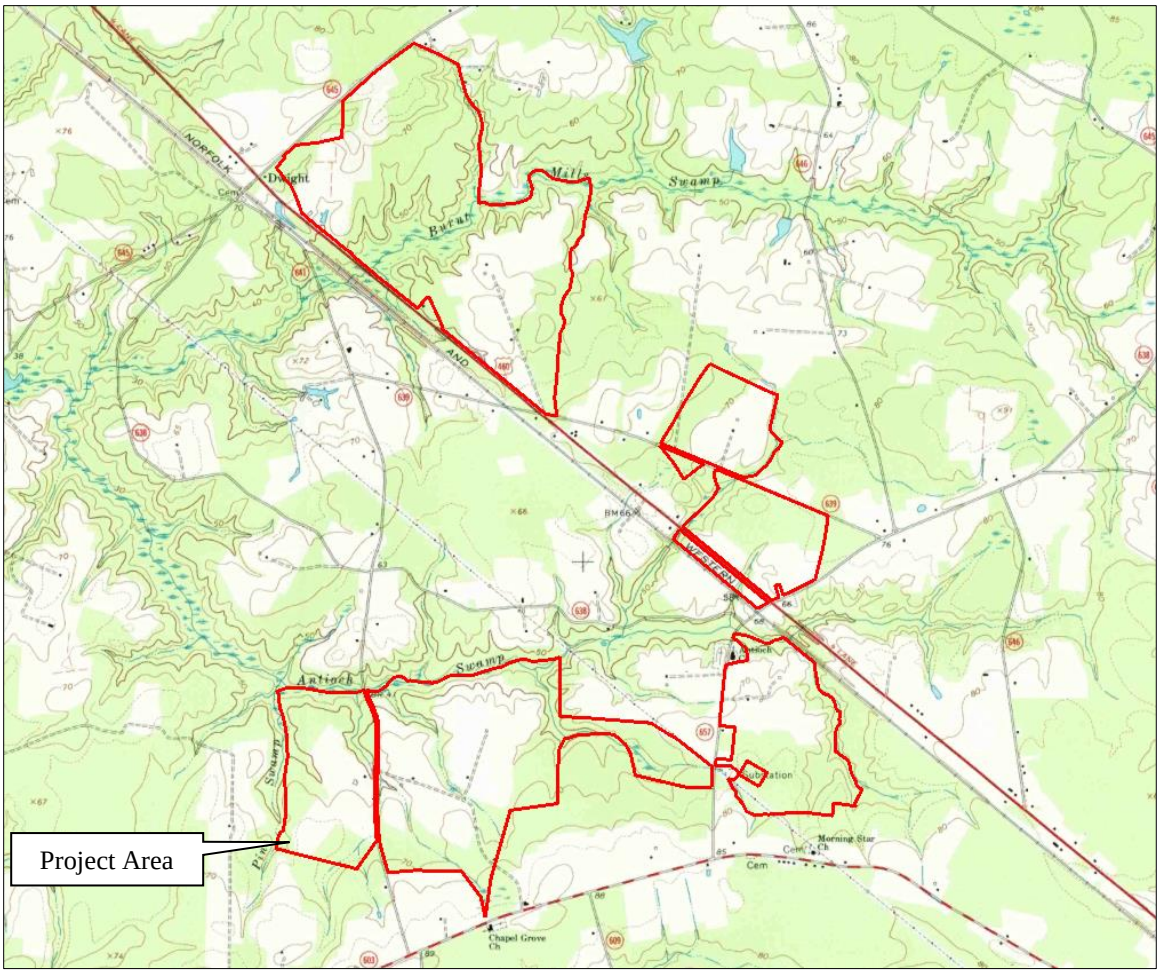


Figure 5-11: Detail of the 1984 *Zuni Quadrangle* depicting the project area. Source: USGS

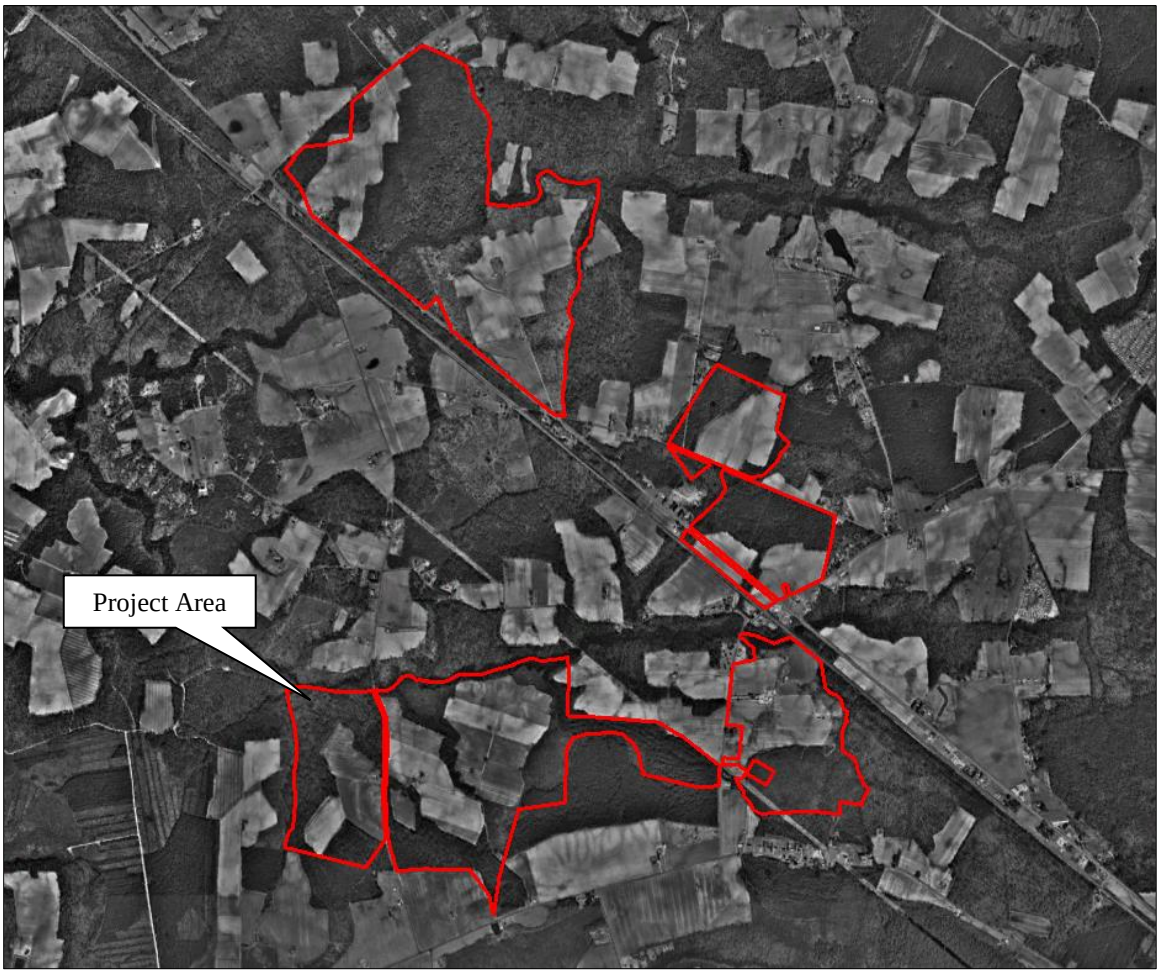


Figure 5-12: Detail of a 1994 aerial depicting the project area. Source: Google Earth

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6. ARCHAEOLOGICAL SURVEY RESULTS

From March 23 through June 3, 2022, D+A conducted archaeological fieldwork in the Carver Solar project area. This effort was conducted in accordance with a stratified sampling methodology that received prior approval from Virginia DEQ and VDHR. This strategy involved 100% systematic survey of the areas of high archaeological potential, 25% sampling of the moderate potential areas, and 10% sampling of the low potential areas, with walkover survey where possible of the areas that did not undergo systematic testing.

The survey area was divided into six different areas, labeled A through F based on location, where a total of fourteen previously unidentified archaeological sites were observed (Figure 6-1; 6-2).

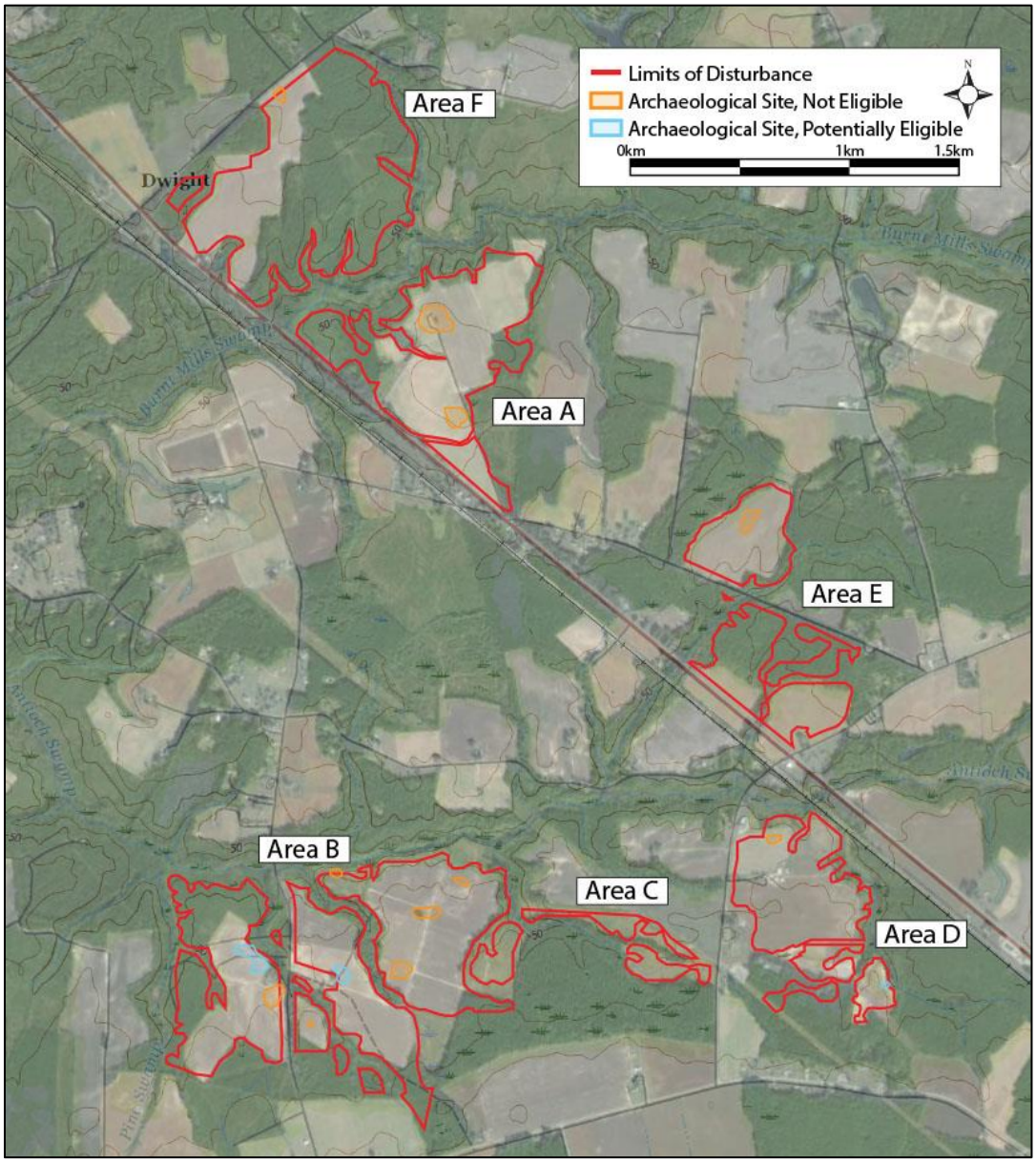


Figure 6-1: Aerial view of project area showing areas. Source: Google Earth 2019.

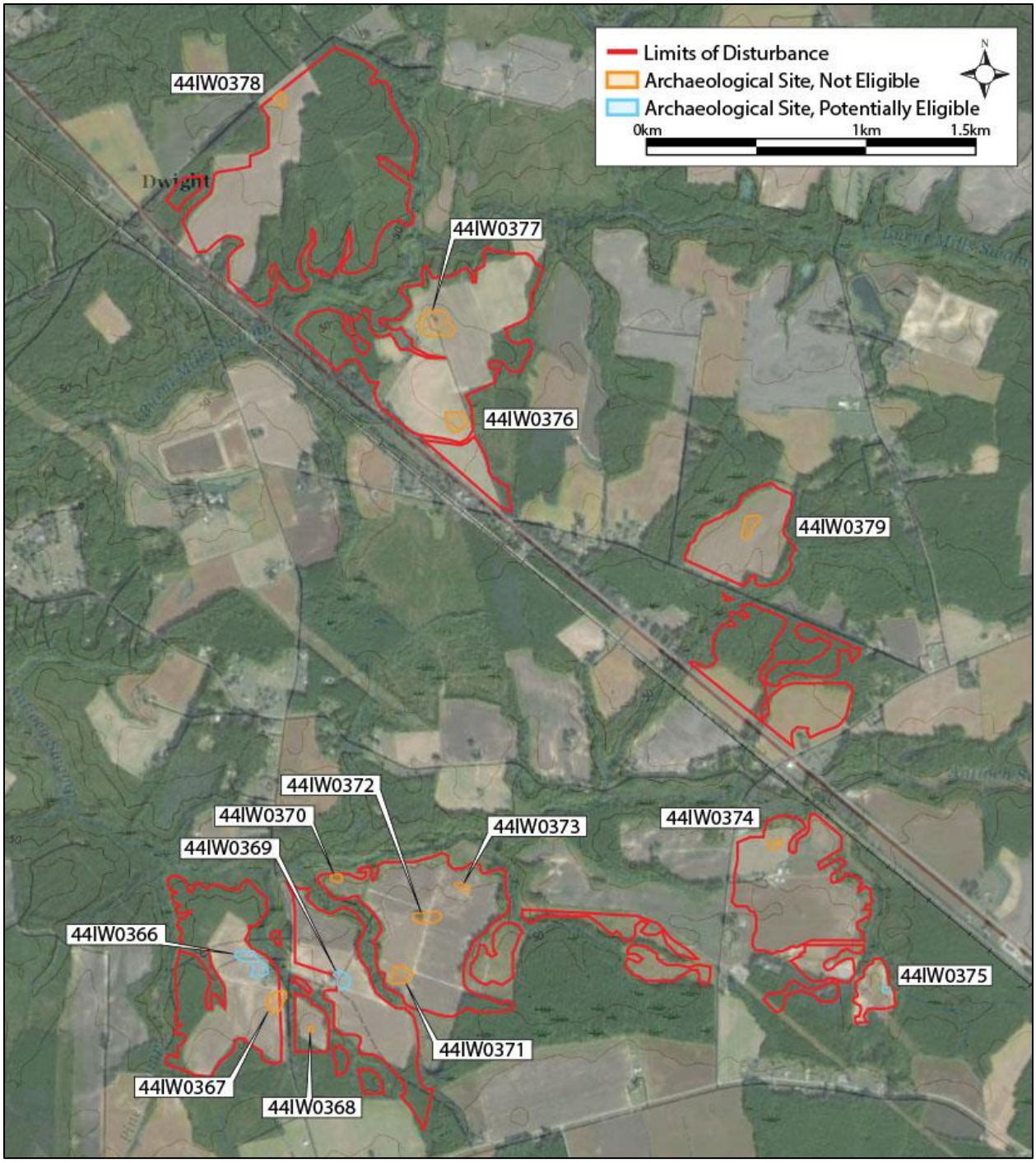


Figure 6-2: Aerial view of project area showing archaeological site locations. Google Earth 2019.

AREA A

This area consists of two tracts separated by US-460 (Figure 6-3). The larger parcel is roughly triangular in shape and is bounded to the south by US-460, to the west by Burnt Mills Swamp, and to the east by a parcel line that partially follows a small drainage.

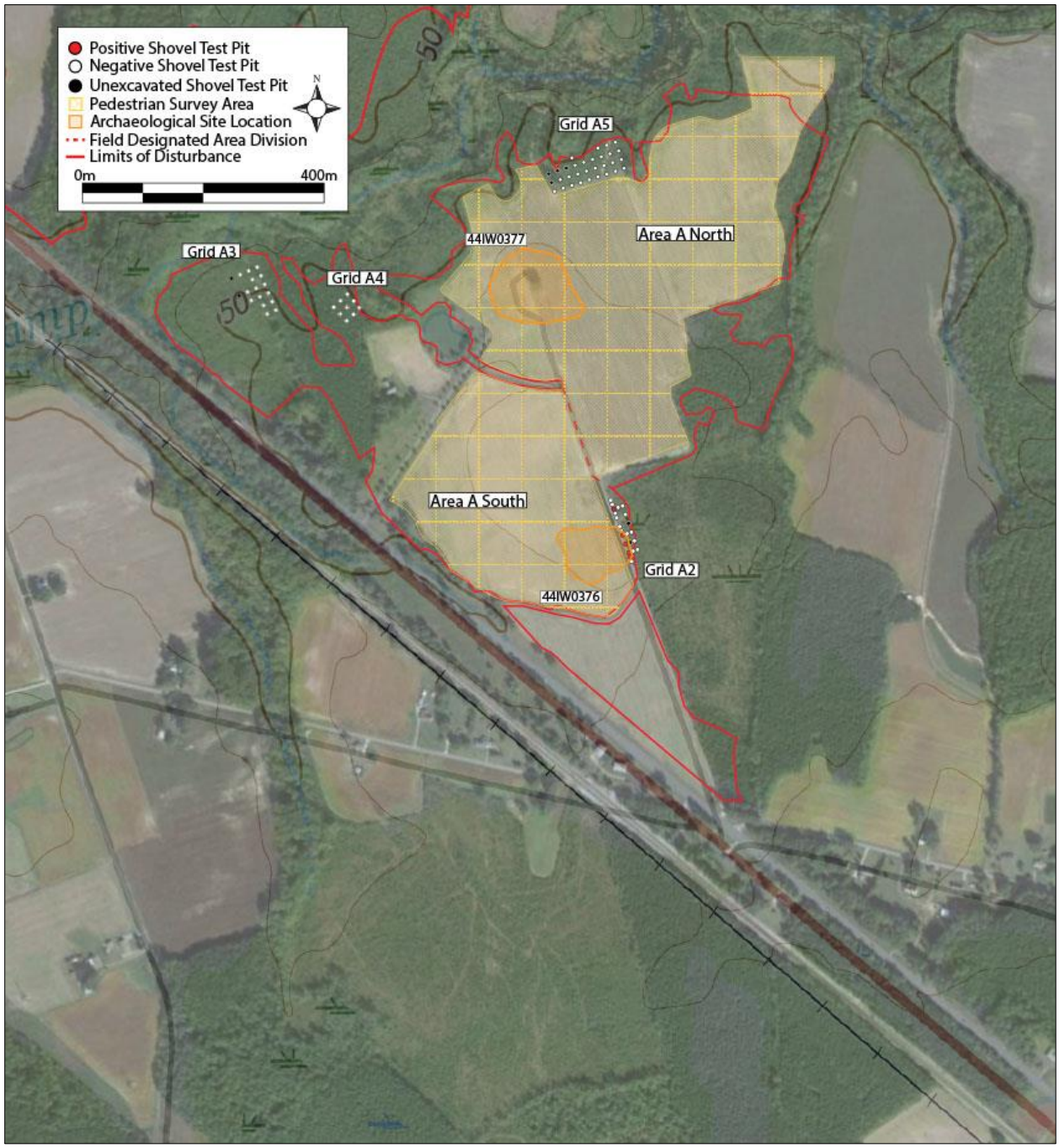


Figure 6-3: Area A pedestrian surveys, shovel test grids, and field sites.

A driveway leading to architectural resource # 046-5102 provides access to the center of the tract, and rough farm tracks provide access around the rest of the property. The southern parcel is set back from Ecella Road to the north and is bounded on the remaining sides by lot lines. In both tracts, testing was only conducted within the limits of disturbance, which avoided wetlands and was set back from roads and parcel boundaries.

Terrain consists of a broad, low upland terminating in a series of low finger ridges overlooking Burnt Mills Swamp and its tributaries to the northwest in both tracts. An artificial pond is located

just north of the house. Vegetation in the northern tract at the time of survey consisted of three fallow agricultural fields in the well-drained center of the property, and new growth pine around the poorly drained periphery. Sparse low weeds and grasses were growing in the agricultural fields, and ground surface visibility was good enough for systematic pedestrian survey. A stand of mature hardwoods is located in the southwest corner of the tract on a well-drained finger ridge overlooking the swamp. The southern tract was clearcut in 2019, and the entirety of the tract was covered in impenetrable new growth (Figures 6-4). Four grids were placed in the dense vegetation outside of the agricultural fields, discussed below.



Figure 6-4: Northeast corner of Area A, looking northwest into wetlands.

AREA A PEDESTRIAN SURVEY

At the time of survey there was over 70% surface visibility in agricultural fields, which make up most of Area A (Figures 6-5, 6-6). These agricultural fields were systematically pedestrian surveyed at no greater than 15-meter (50-foot) intervals; the fields were split into Area A North and Area A South. Two sites, Field Sites 11 and 12, were identified during pedestrian survey and are discussed in greater detail at the end of this section.



Figure 6-5: Vegetation and terrain in west-central portion of northeastern field in Area A, facing southwest.



Figure 6-6: Ground surface visibility in Area A.

GRID A2

This grid was placed along the edge of agricultural fields and Area A South (grid numbering began with A2, and no Grid A1 was designated). Vegetation in this area consists of dense briar thickets and mature pine trees (Figure 6-7). Disturbance from the nearby road and from logging activities was severe.



Figure 6-7: Dense vegetation in Grid A2, facing south.

A grid of 22 shovel test pits was laid out at 15-meter (50-foot) intervals in seven transects labeled (-A) through G (Figure 6-8). Two of these were unable to be excavated due to surface disturbance and impenetrable vegetation, and five shovel test pits were positive for cultural material. All positive shovel test pits were located at the side of the road that separates the agricultural fields from the wooded area and were included as a part of Site 44IW0376 which is discussed in greater detail below.

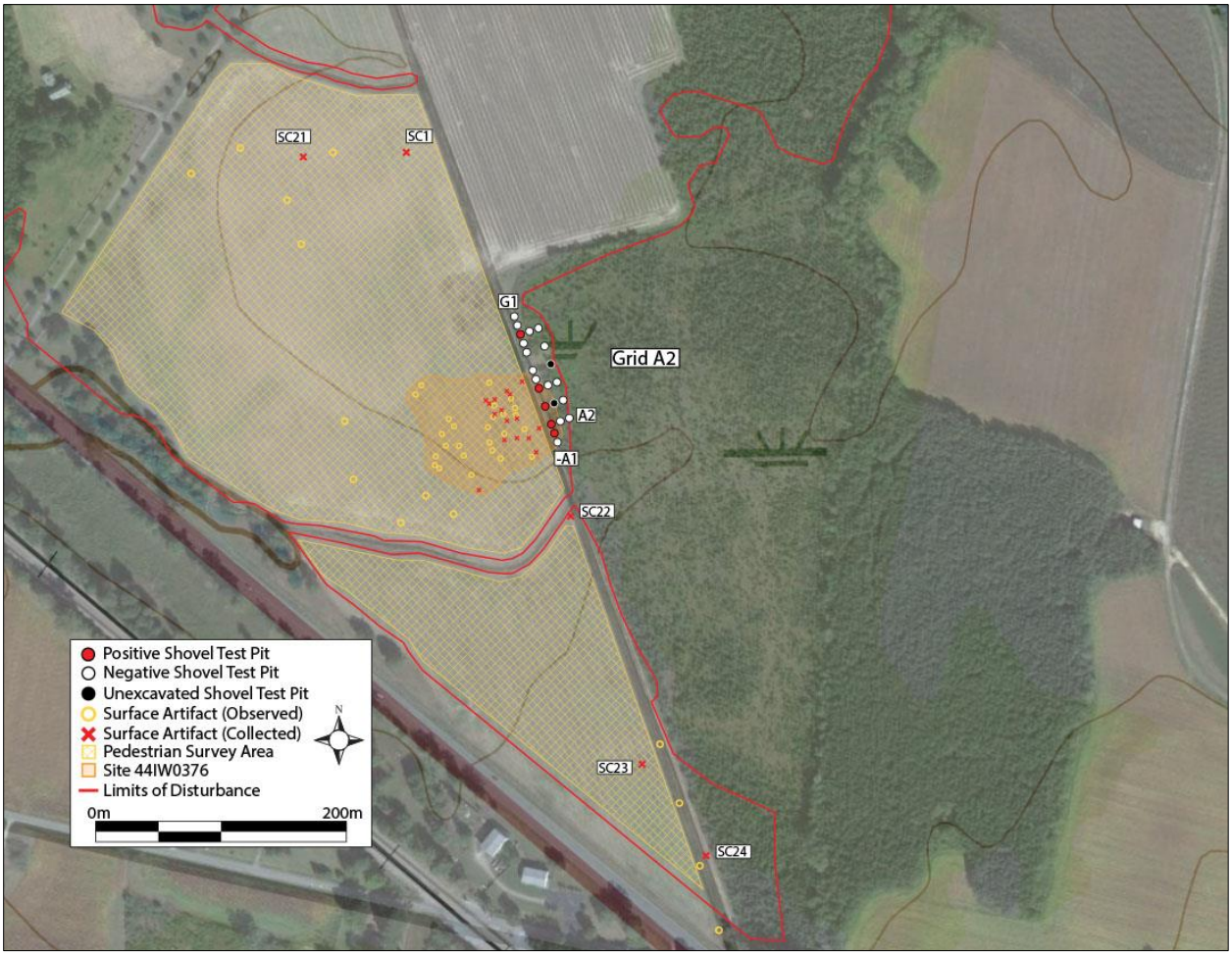


Figure 6-8: Aerial View of the Area A South pedestrian survey and shovel test Grid A2. Google Earth 2019.

Soils in this area are the same as those found in Area A4, discussed below.

GRID A3

This grid was placed in a wooded part of Area A, near the northern part of the overall project area and bordering Route 460 (Figure 6-9). Vegetation in this area consists of dense, often impenetrable briar thickets and mature pine trees.

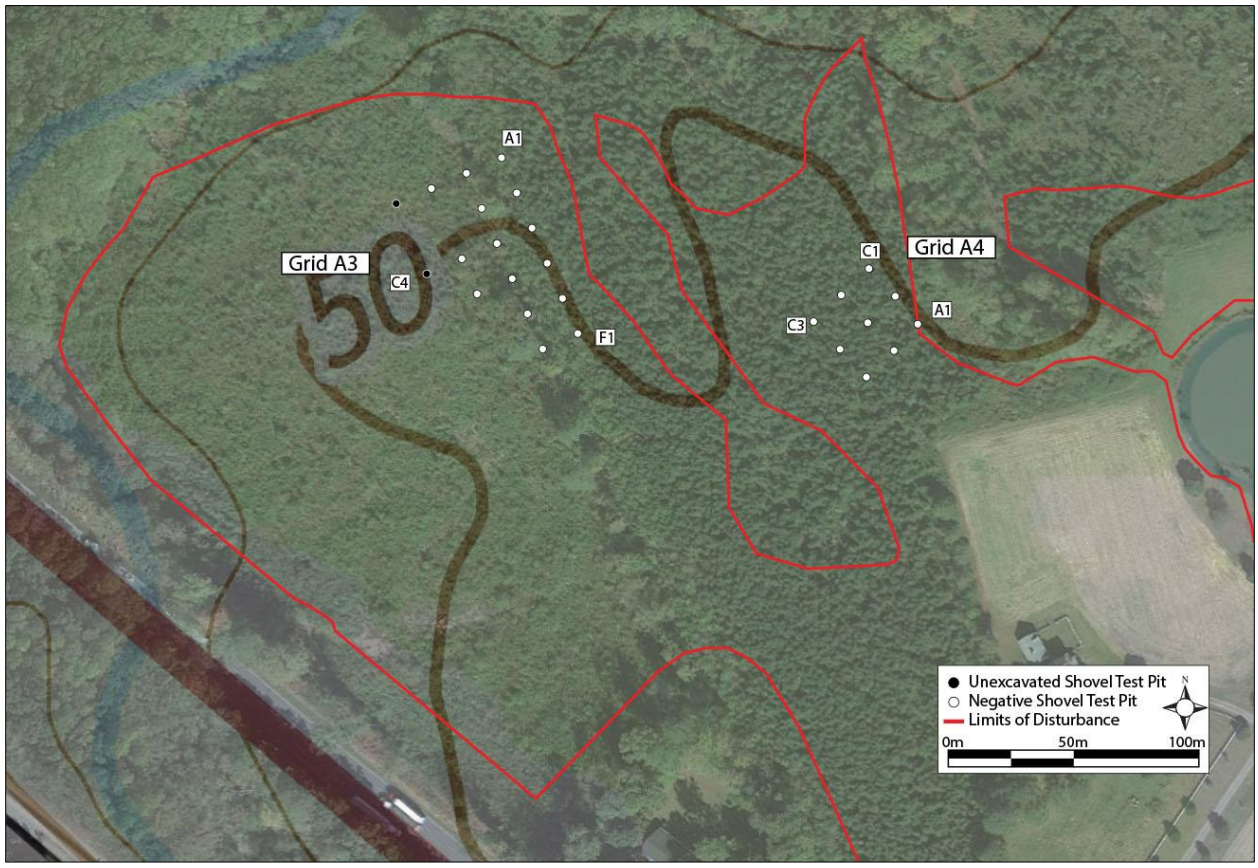


Figure 6-9: Aerial View of the Grid A3 and Grid A4 shovel test grids. Google Earth 2019.

A grid of seventeen shovel test pits was laid out at 15-meter (50-foot) intervals in six transects labeled A through F. Two of these were unable to be excavated due to surface disturbance and impenetrable vegetation. No historical surface features were observed, and no cultural material was found.

Disturbance from logging activities was severe. Soils in this area are the same as those found in Area A4, discussed below.

GRID A4

This grid was placed in a wooded part of Area A, near the northern part of the overall project area and bordering Route 460, just east of the Area A3 grid (see above). Vegetation in this area consists of dense, often impenetrable briar thickets and mature pine trees (Figures 6-10, 6-11). A grid of nine shovel test pits was laid out at 15-meter (50-foot) intervals in three transects labeled A through C. No historical surface features were observed, and no cultural material was found.



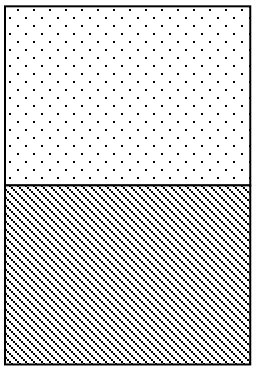
Figure 6-10: Dense vegetation in Grid A4, facing north.



Figure 6-11: South from B1, Grid A4.

Disturbance from logging activities was severe. Typical stratigraphy consisted of 10YR 3/1 very dark gray sand topsoil (A horizon) over 10YR 6/3 pale brown sandy clay subsoil (B horizon) (Figure 6-12).





10YR 3/1 sand
0-25 cm

10YR 6/3 sandy clay
25-34 cm

Figure 6-12: Soil profile of Shovel Test Pit B1 in Grid A4.

GRID A5

This area was placed in a wooded part of Area A, near the northern part of the overall project area, east of Area A4 and bordering the plowed field (Figure 6-13). Vegetation in this area consists of dense, often impenetrable briar thickets and mature pine trees (Figure 6-14). Disturbance from logging activities was severe.

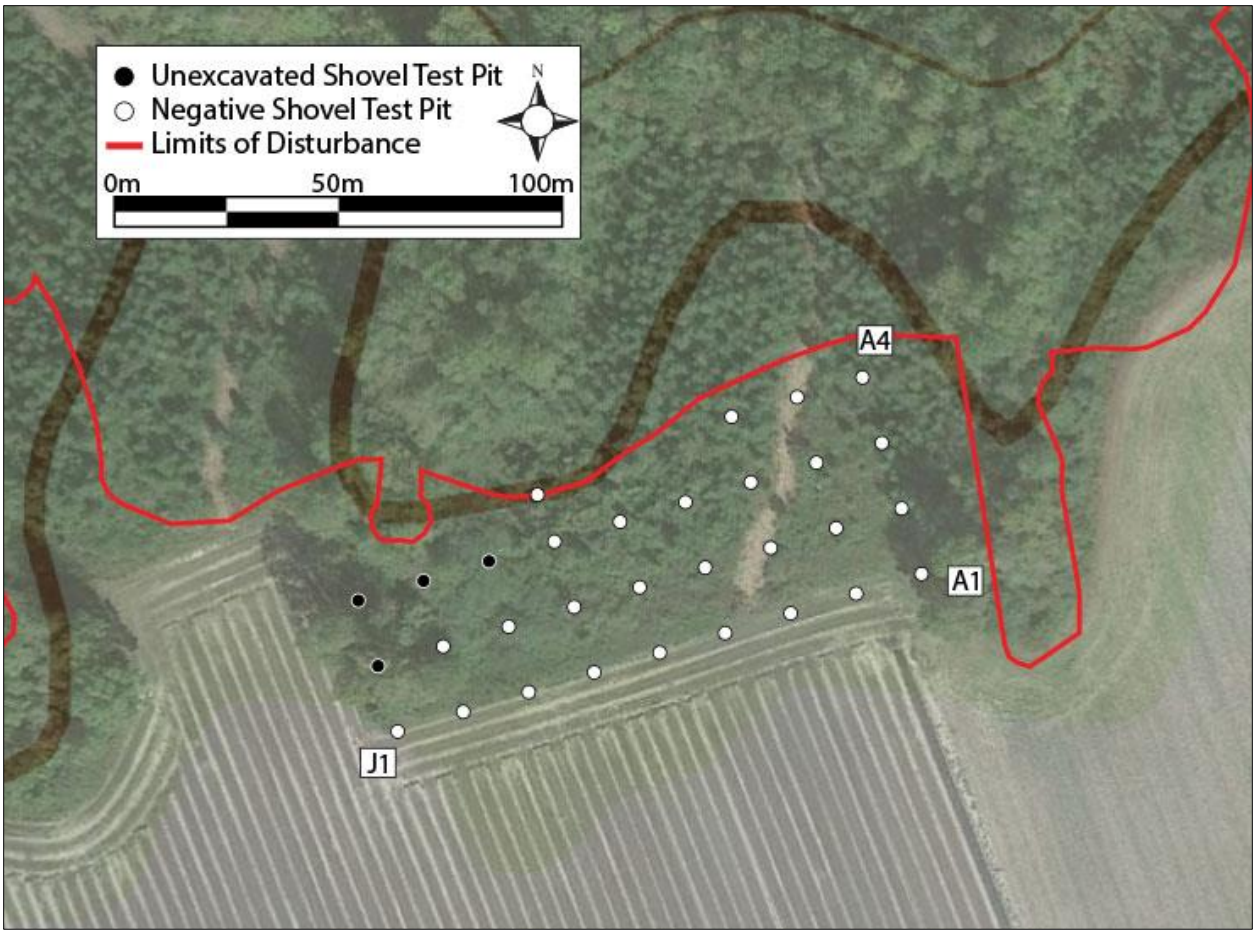


Figure 6-13: Aerial View of the Grid A5 shovel test grid. Google Earth 2019.

A grid of 31 shovel test pits was laid out at 15-meter (50-foot) intervals in seven transects labeled A through H. Four of these could not be excavated due to surface disturbance and impenetrable vegetation. No historical surface features were observed, and no cultural material was found.



Figure 6-14: Dense vegetation in Grid A5, facing east.

Soils in this area were the same as those found in Area A4.

SITE 44IW0376

This site was identified through systematic pedestrian survey in Area A South and shovel testing in Grid A2 (Figure 6-15). It consists of a scatter of early-twentieth century material measuring about 2.25 hectares (5.5 acres). Artifacts included whiteware, milk glass, colorless glass, screw top bottles, wire nails, and brick (Figure 6-16). Aerial imagery shows a building in this location until 2002.

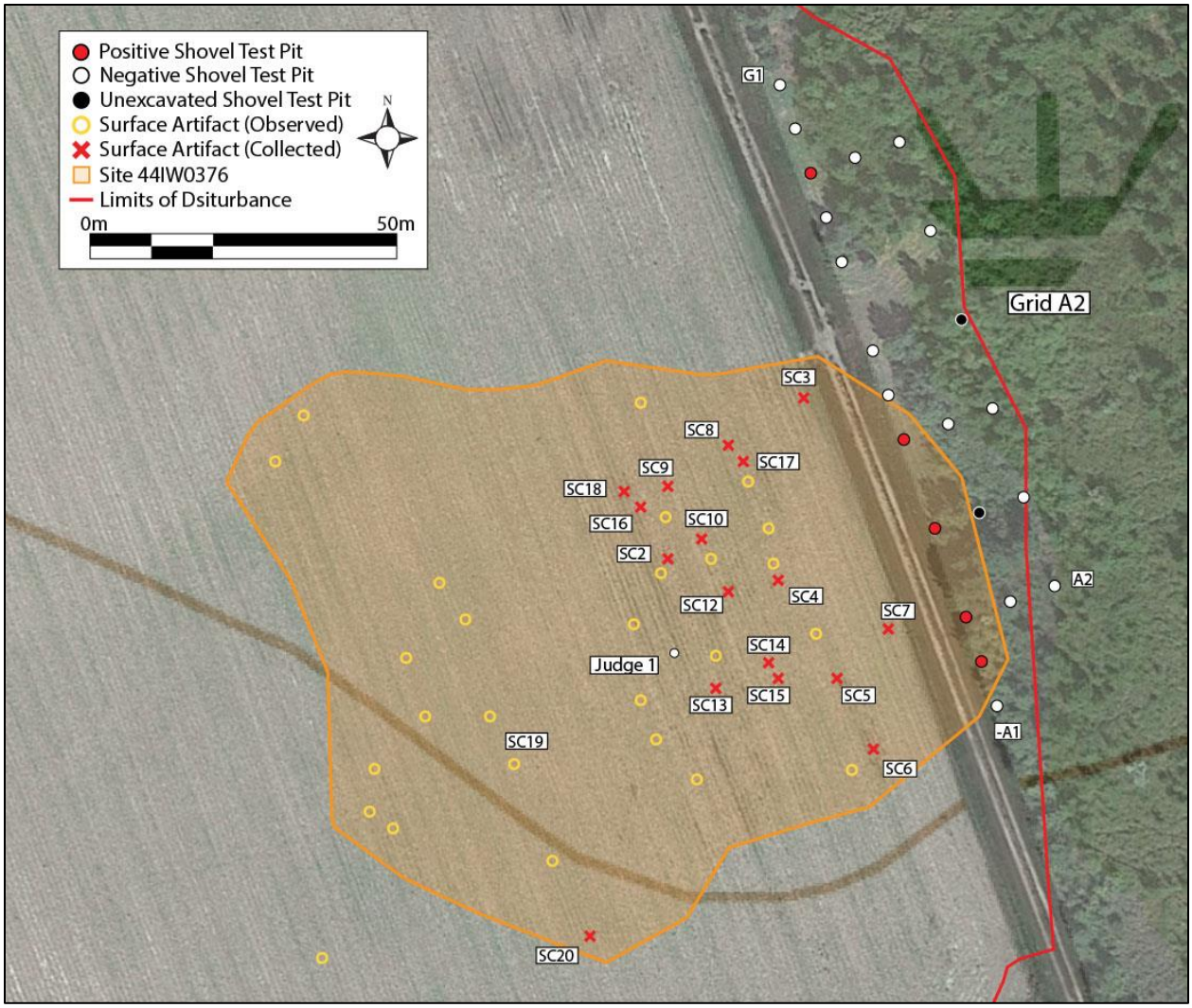


Figure 6-15: Aerial view of Site 44IW0376. Google Earth 2019.



Figure 6-16: Artifacts found in Site 44IW0376.

Stratigraphy in the site consisted of a deep plowzone of 10YR 3/1 very dark gray sand (Ap horizon) over 10YR 6/3 pale brown sandy clay subsoil (B horizon) (Figure 6-17).

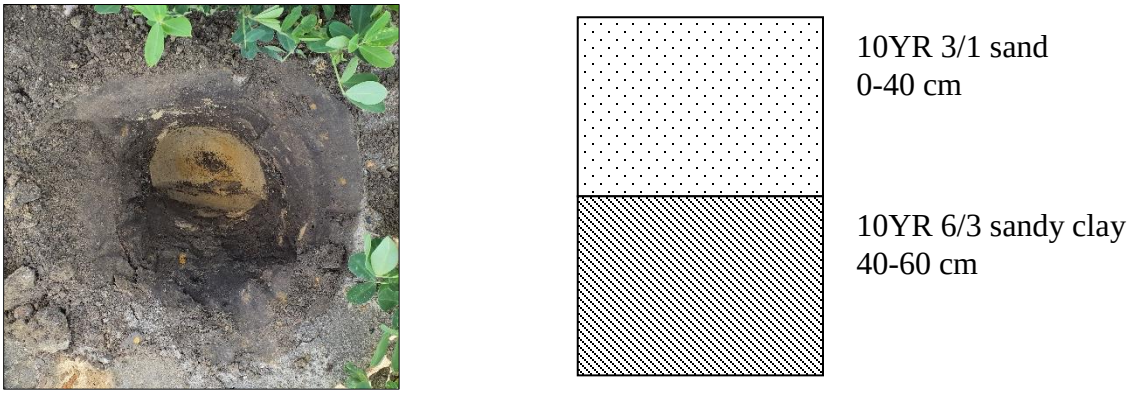


Figure 6-17: Soil profile of Judgmental Shovel Test 1 in Site 44IW0376.

Early-twentieth century farmsteads are well-represented in this region, and this site does not offer significant research potential. Therefore, it is recommended not eligible for inclusion in the NRHP, and no further work is recommended.

SITE 44IW0377

This site was identified through systematic pedestrian survey in Area A North (Figure 6-20). It consists of a scatter of mid-nineteenth through twentieth-century artifacts measuring

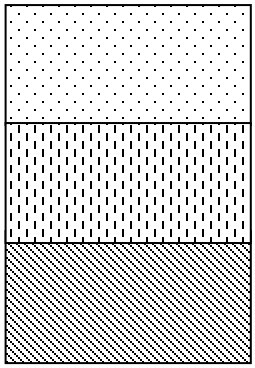
approximately 2.5 hectares (6.25 acres). Artifacts included pearlware, whiteware, cobalt glass, milk glass window glass, and brick and mortar (Figure 6-18). A building is depicted in this location on the 1864 map as associated with the Stevens family. Aerial imagery shows that a large farmstead with multiple outbuildings was present in this location in 1966, and although the main dwelling appears to have been demolished in the 1990s, the outbuildings stood until the early-2000s. Aerial images show large pushpiles of demolition debris, suggesting that little subsurface integrity remains.



Figure 6-18: Artifacts found in Site 44IW0377.

Soils in the plowed area appeared disturbed, exhibiting a potential buried A horizon. Typical stratigraphy consisted of 10YR 4/4 dark yellowish brown mottled with 10YR 5/8 yellowish brown sandy clay plowzone (Ap horizon) over 10YR 4/1 dark gray sandy clay over 10YR 5/3 brown sand subsoil (B horizon) (Figure 6-19.





10YR 4/4 mottled with
10YR 5/8 sandy clay
0-24 cm

10YR 4/1 sandy clay
24-44 cm

10YR 5/3 sandy
44-53 cm

Figure 6-19: Soil profile of Judgmental Shovel Test 1 in Site 44IW0377.

Due to the common nature of this site type and the level of subsurface disturbance, this site offers little research potential and is recommended not eligible for inclusion in the NRHP. No further work is recommended.

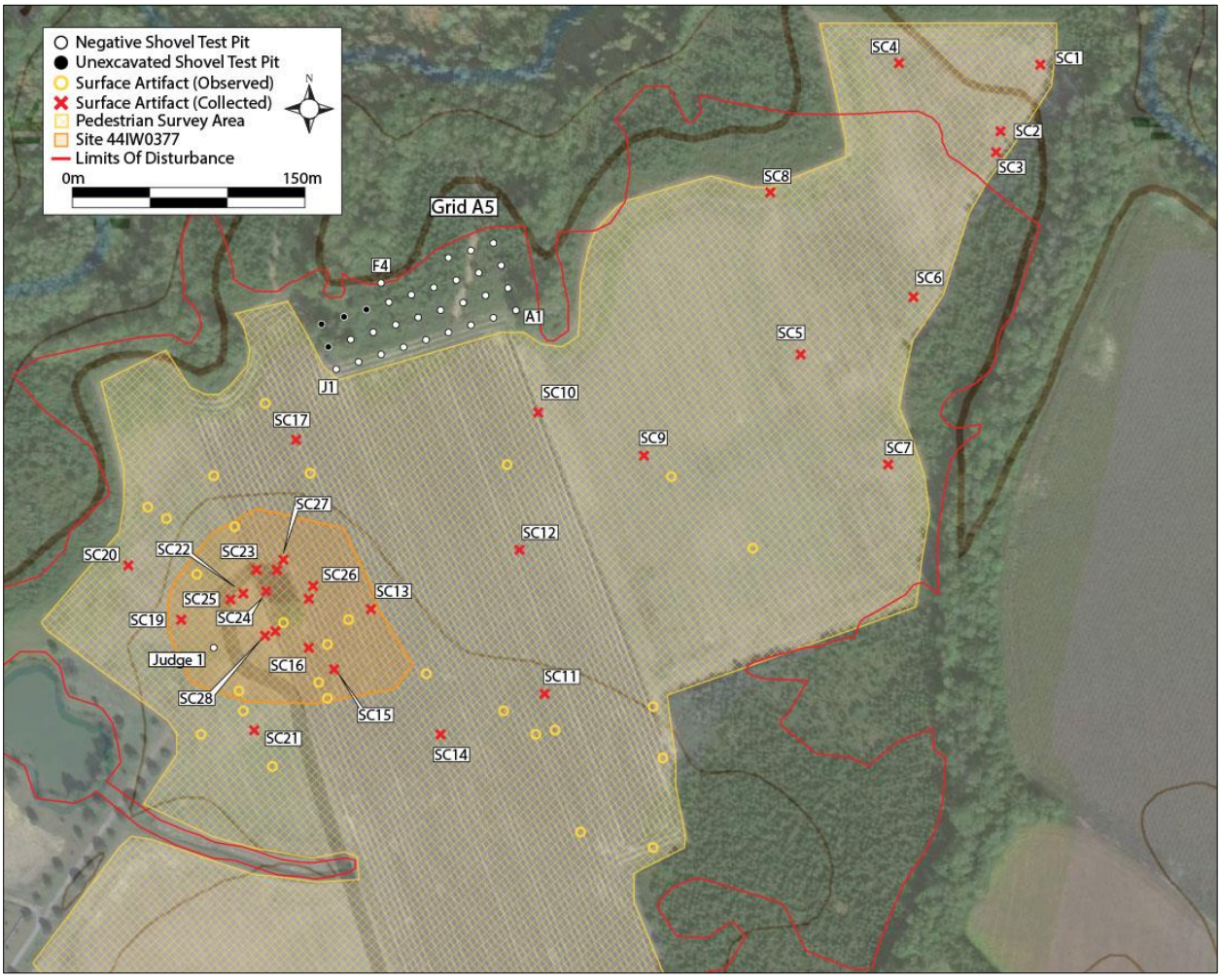


Figure 6-20: Site 44IW0377 in Area A North.

AREA B

This area consists of two tracts located to the east and west of Barrett Town Road (CR-641) (Figure 6-21). Both tracts are bounded to the north by Antioch Swamp. The western tract is bounded to the west by Pine Swamp, the south by a lot line, and the east by Barrett Town Road. The eastern tract is bounded to the west by the road, the east by a tributary of Antioch Swamp, and the south by a lot line. The limits of disturbance are set back from lot lines and wetlands. Farm roads provide access through both tracts. A historic house (Resource # 046-5089) is located on the front side of the eastern tract (Figure 6-22).

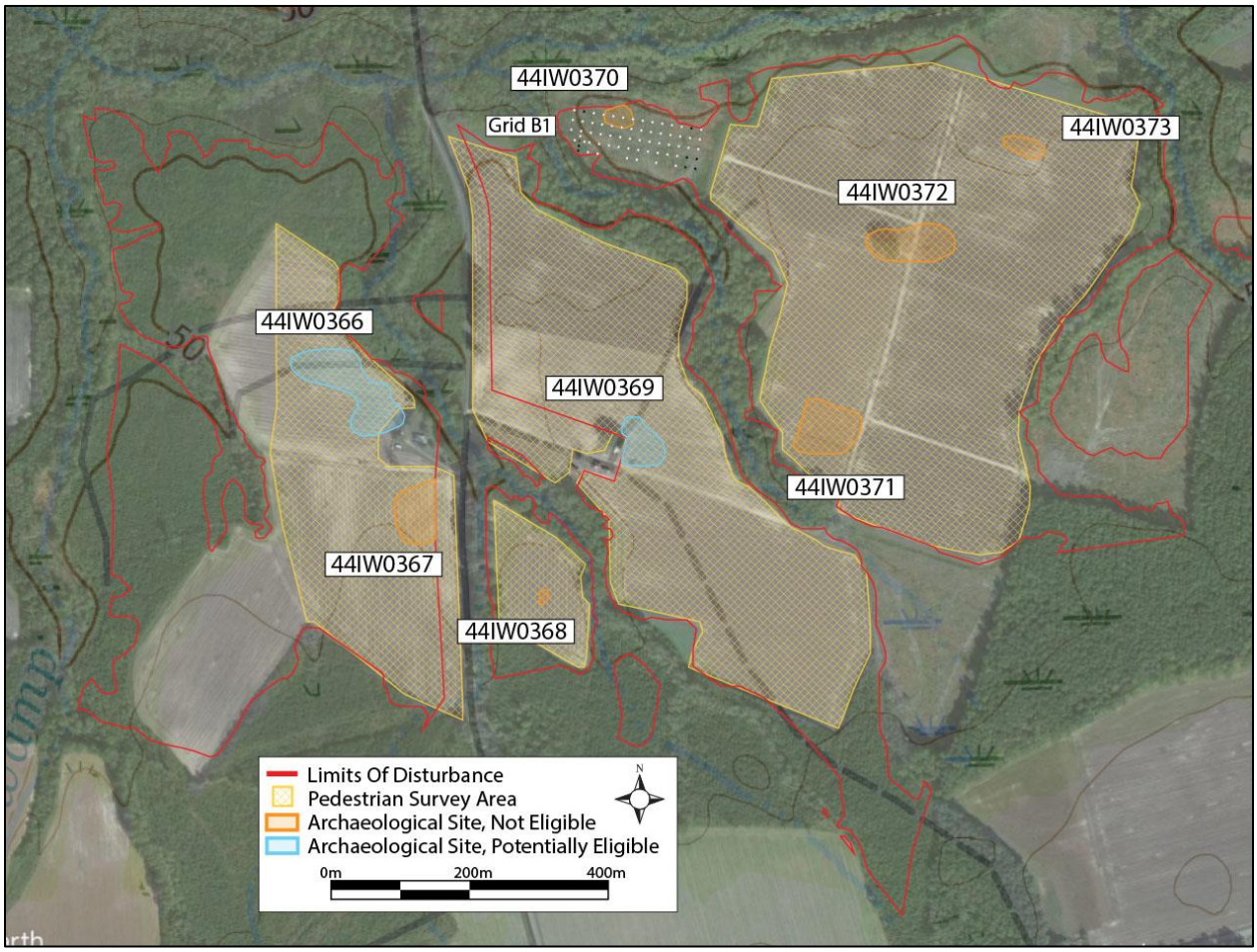


Figure 6-21: Aerial view of Area B pedestrian survey, shovel test grid, and field sites. Google Earth 2019.

Terrain consists of a series broad, low ridges overlooking Antioch Swamp and divided by tributaries of the swamp. The well-drained, level terrain of each ridge is used as an agricultural field. The northern ends of the ridges on the western tract and the southern base of the ridges on the eastern tract were formerly wooded and were clearcut in 2017. One short, wide ridge on the eastern edge of the eastern tract was clearcut in 2021. The drainages and wetlands are lined with mature hardwoods.



Figure 6-22: View southwest of Resource 046-5089 in eastern side of Area B.

AREA B PEDESTRIAN SURVEY

Ground surface visibility was excellent in the agricultural fields where planted crops had not yet sprouted, so systematic pedestrian survey was utilized across the fields (Figures 6-23, 6-24). Pedestrian survey was conducted in transects spaced no greater than 15 meter (50 feet) apart, with more intensive inspection being conducted around any observed cultural material. Eight sites were identified through systematic pedestrian survey: they are described below.



Figure 6-23: View west towards drainage in west side of Area B.



Figure 6-24: Vegetation and terrain on west side of Area B, facing south in center of southern field.

GRID B1

One high potential landform in Area B could not be pedestrian surveyed. This area was considered high probability for cultural activity due to its location on a broad, flat finger ridge overlooking the confluence of Antioch Swamp and one of its tributaries (Figure 6-25). Vegetation and surface disturbance in this area are both consistent with recent logging activities: the landform is covered by young tulip poplar saplings and tall grasses. (Figure 6-26).

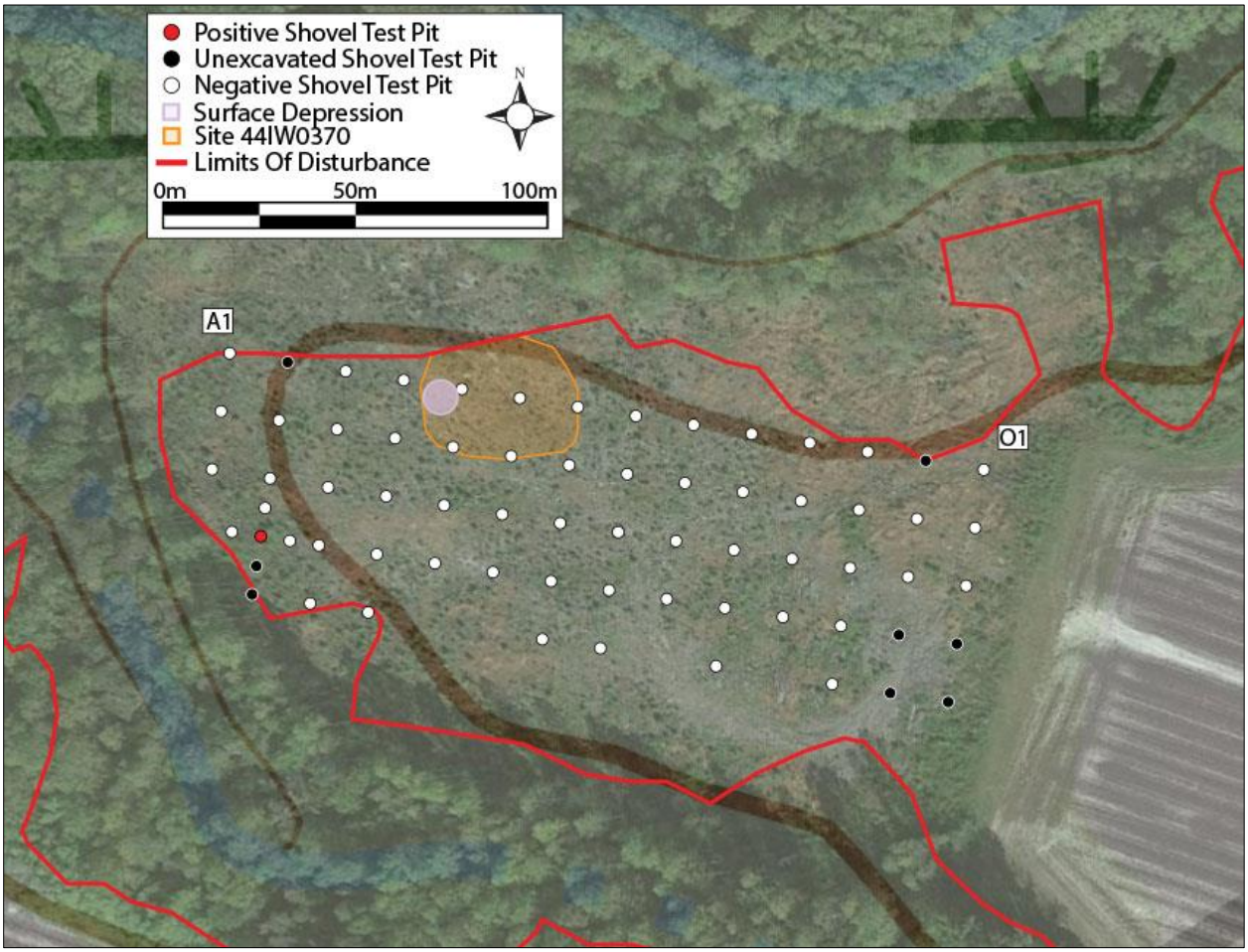


Figure 6-25: Aerial view of Grid B1 shovel test grid and Site 44IW0370. Google Earth 2019.



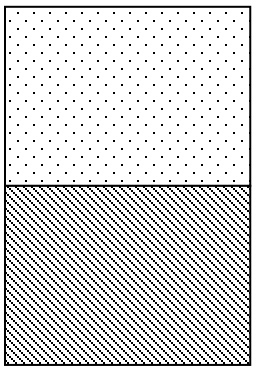
Figure 6-26: Clearcut finger ridge on eastern tract, facing east from Shovel Test J1.

A grid of 68 shovel test pits was laid out at 15-meter (50-foot) intervals in fourteen transects labeled A through O (excluding I). Eight of these could not be excavated due to slope and surface disturbance, and one shovel test pit was positive for cultural material. The artifact found in this shovel test pit was identified as fire cracked rock and was located outside of the boundary of Field Site 44IW0370. Radials were excavated around this positive shovel test pit, though no further cultural material was found in the soils.

Site 44IW0370 was identified during the excavation of this area. Only surface features, including a deep circular depression and a road cut, and a small cluster of early-twentieth century artifacts on the surface mark the site, as no shovel test pits revealed any subsurface cultural material within this site. These features and artifacts are discussed in depth below.

Soils are disturbed by erosion and tree removal and generally exhibited a two stratum profile of topsoil over subsoil. Typical stratigraphy consisted of a thin layer of 10YR 4/3 sandy loam topsoil (A horizon) over 10YR 6/4 yellowish brown clay sand (B horizon) (Figure 6-27).





10YR 4/3 sandy loam
0-13 cm

10YR 6/4 clay sand
13-25 cm

Figure 6-27: Soil profile of Shovel Test Pit J3 in Area B1 and Site 44IW0370.

SITE 44IW0366

This site is located on the western side of Area B behind Resource # 046-5277 (Figure 6-28). It covers approximately 0.89 hectares (2.21 acres) and was identified during pedestrian survey.

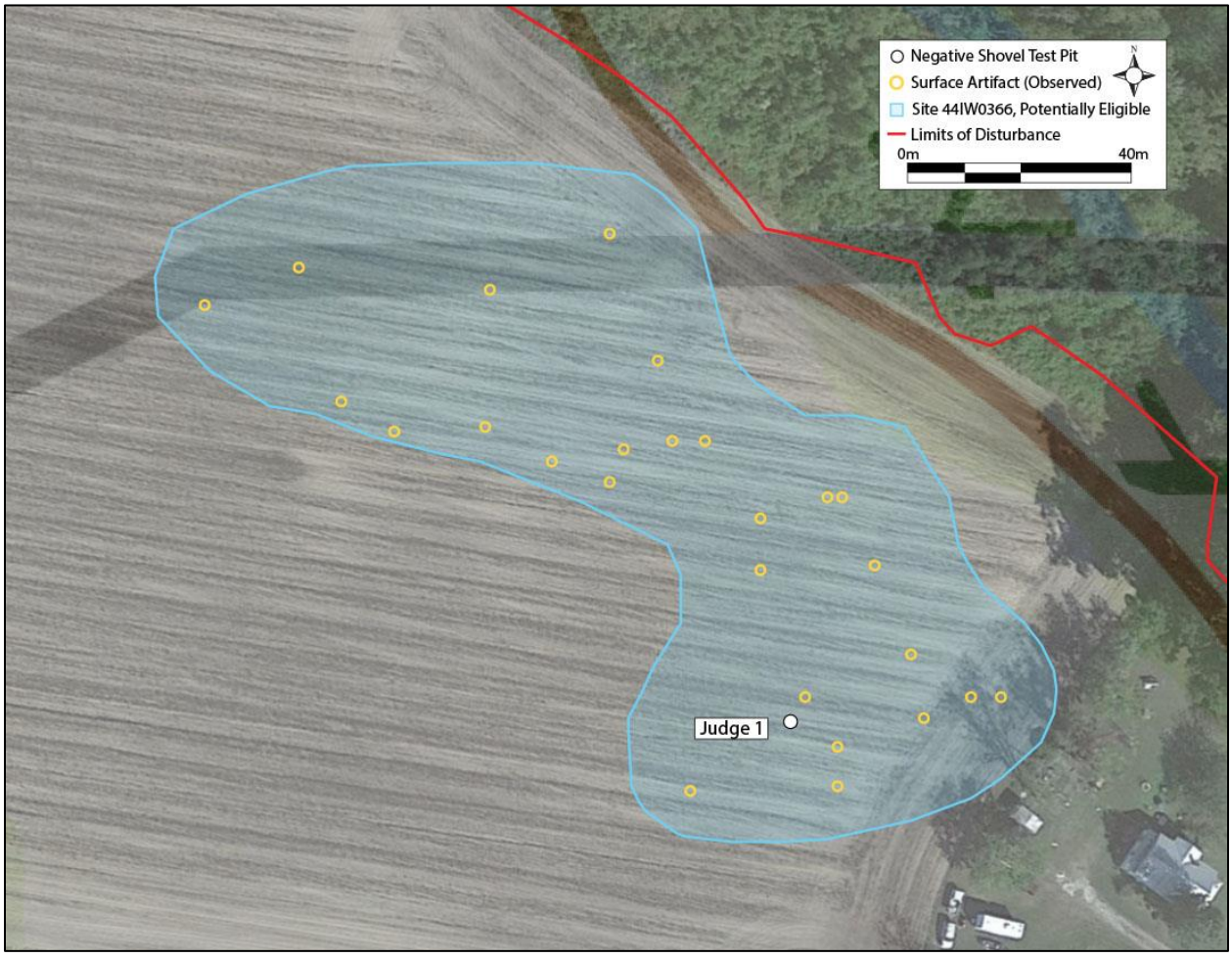


Figure 6-28: Aerial view of Site 44IW0366. Google Earth 2019.

Artifacts observed date from the mid-eighteenth to the early-twentieth century. These materials included coarse red earthenware, white clay pipe stems, Westerwald stoneware, cut nails, whiteware, milk glass, and solarized glass (Figure 6-29).

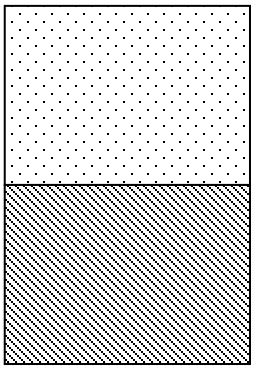


Figure 6-29: Artifacts found in Site 44IW0366.

Due to its large size and the presence of eighteenth-century artifacts, this site has the potential to provide important data pertaining to the eighteenth century in the region, and it is recommended potentially eligible for inclusion in the NRHP. Avoidance or further study is recommended.

Soils in this site generally exhibited a two stratum profile of plowzone over subsoil. Typical stratigraphy consisted of 10YR 4/2 dark grayish brown sand plowzone (Ap horizon) over 10YR 5/4 yellowish brown sandy clay subsoil (B horizon) (Figure 6-30).





10YR 4/2 sand
0-36 cm

10YR 5/4 sandy clay
36-46 cm

Figure 6-30: Soil profile of Judgmental Shovel Test 1 in Site 44IW0366.

SITE 44IW0367

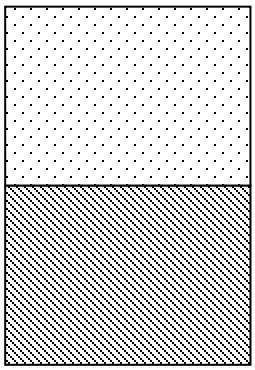
This site is a small, diffuse scatter of late-nineteenth through early-twentieth century artifacts located in an agricultural field just south of Resource # 046-5277 (Figure 6-31). Artifacts included whiteware, porcelaneous, brick, and colorless glass. This site is likely associated with the nearby twentieth century dwelling. Due to its small size and recent date, this site is unlikely to yield new or important data, and it is recommended not eligible for inclusion in the NRHIP. No further work is recommended.



Figure 6-31: Aerial view of Site 44IW0367. Google Earth 2019.

Soils in this site generally exhibited a two stratum profile of plowzone over subsoil. Typical stratigraphy consisted of 10YR 4/2 dark grayish brown sand plowzone (Ap horizon) over 10YR 5/4 yellowish brown sandy clay subsoil (B horizon) (Figure 6-32).





10YR 4/2 sand
0-36 cm

10YR 5/4 sandy clay
36-46 cm

Figure 6-32: Soil profile of Judgmental Shovel Test 1 in Site44IW0367.

SITE 44IW0368

This site was observed in a small field to the south of Resource #046-5277, on the other side of a drainage (Figure 6-33). This site is a small cluster of late-nineteenth through early-twentieth century artifacts, including whiteware, brick fragments, and solarized glass. One jasper tertiary flake was also observed in this area (Figure 6-34). Due to its small size and recent date, this site is unlikely to yield new or important data, and it is recommended not eligible for inclusion in the NRHIP. No further work is recommended.

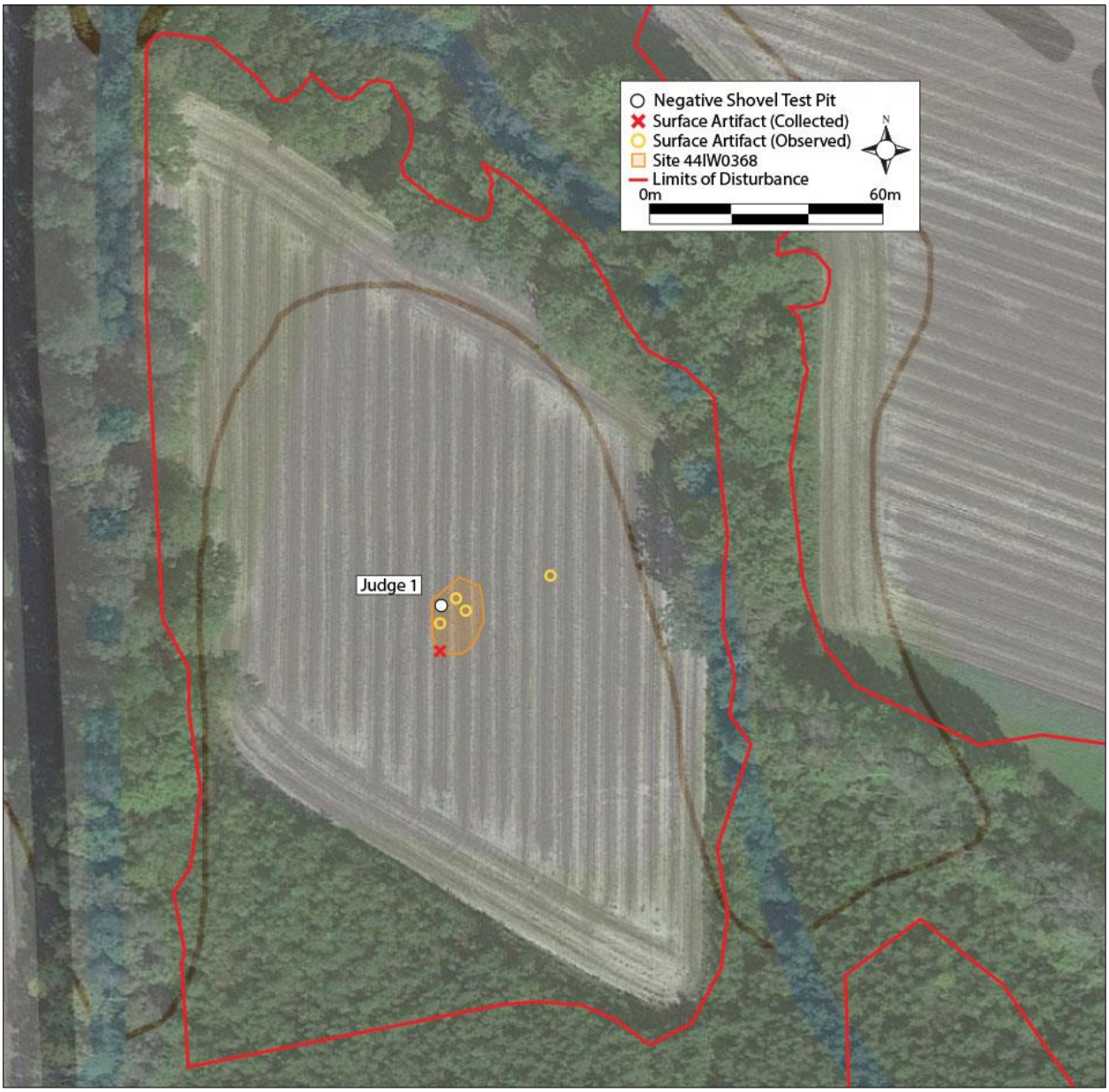


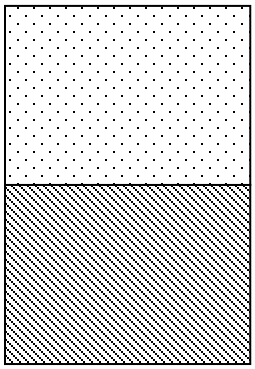
Figure 6-33: Aerial view of Site 44IW0368. Google Earth 2019.



Figure 6-34: Artifact found in Site 44IW0368.

Soils in this site generally exhibited a two stratum profile of plowzone over subsoil. Typical stratigraphy consisted of 10YR 5/4 yellowish brown sand plowzone (Ap horizon) over 10YR 6/6 yellowish brown sandy clay subsoil (B horizon) (Figure 6-35).





10YR 5/4 sand
0-20 cm

10YR 6/6 sandy clay
20-30 cm

Figure 6-35: Soil profile of Judgmental Shovel Test 1 in Site 44IW0368.

SITE 44IW0369

This site is associated with Resource # 046-5089, and it consists of a scatter of domestic material located in front of the dwelling (Figure 6-36).

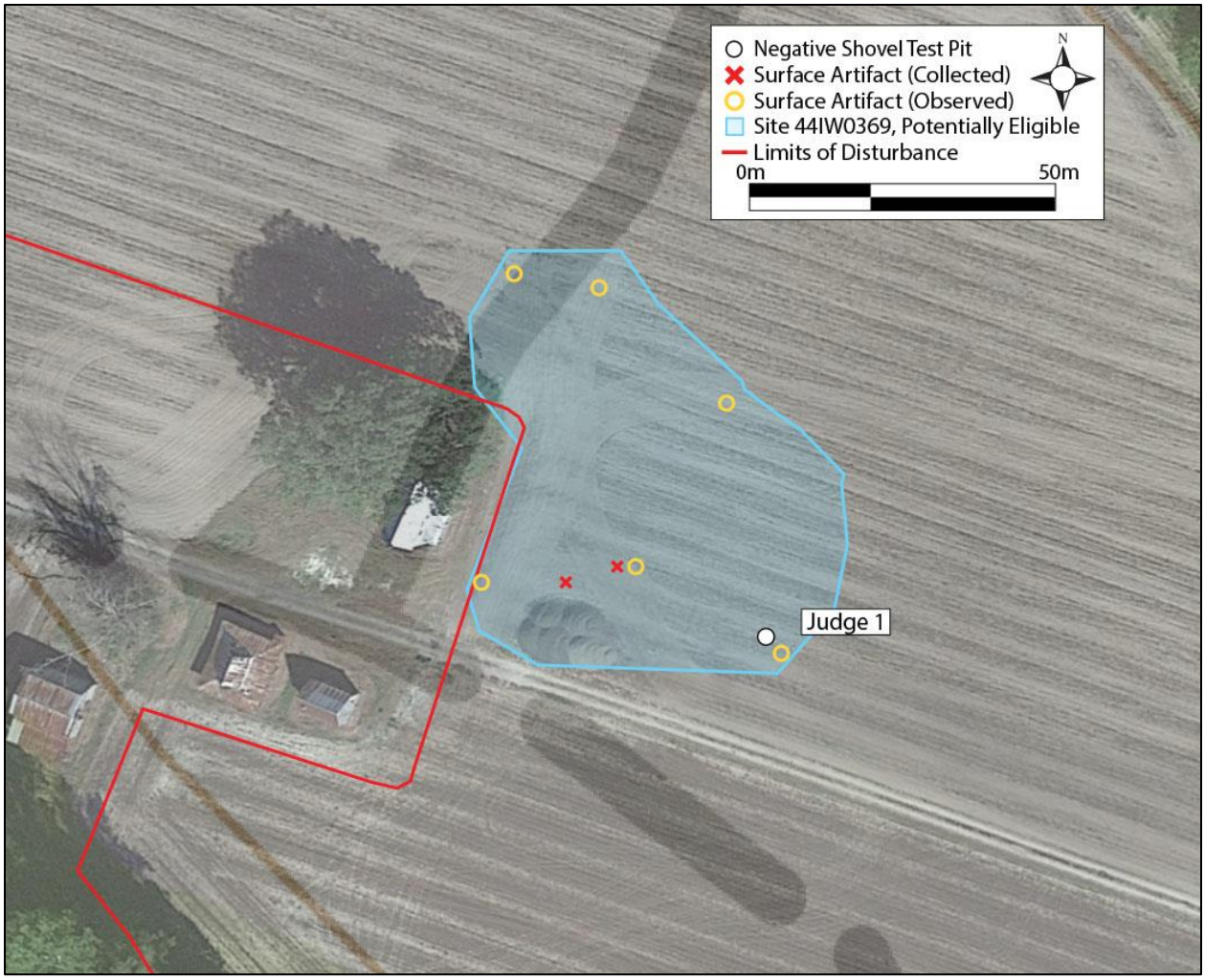


Figure 6-36: Aerial view of Site 44IW0369. Google Earth 2019.

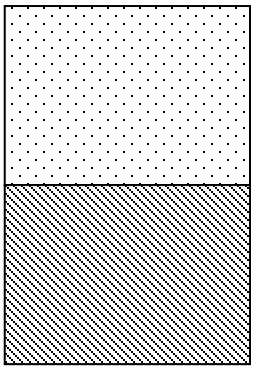
As in Site 44IW0366, artifacts consist of a mixture of eighteenth and early-twentieth century material, including white salt-glazed stoneware and shell-edged pearlware (Figure 6-37). Due to its association with a potentially early-dating farm complex and the presence of eighteenth-century artifacts, this site has the potential to provide important data pertaining to the eighteenth century in the region, and it is recommended potentially eligible for inclusion in the NRHP. Avoidance or further study is recommended.



Figure 6-37: Artifacts found in Site 44IW0369.

Soils in this site generally exhibited a two stratum profile of plowzone over subsoil. Typical stratigraphy consisted of 10YR 4/2 dark grayish brown sand (Ap horizon) over 10YR 5/4 yellowish brown sandy clay (B horizon) (Figure 6-38).





10YR 4/2 sand
0-34 cm

10YR 5/4 sandy clay
34-50 cm

Figure 6-38: Soil profile of Judgmental Shovel Test 1 in Site 44IW0369.

SITE 44IW0370

This site is located immediately south of Antioch Swamp and east of Barrett Town Road, on a narrow, flat landform, and covers approximately 0.1 hectare (0.2 acre) (Figure 6-39).

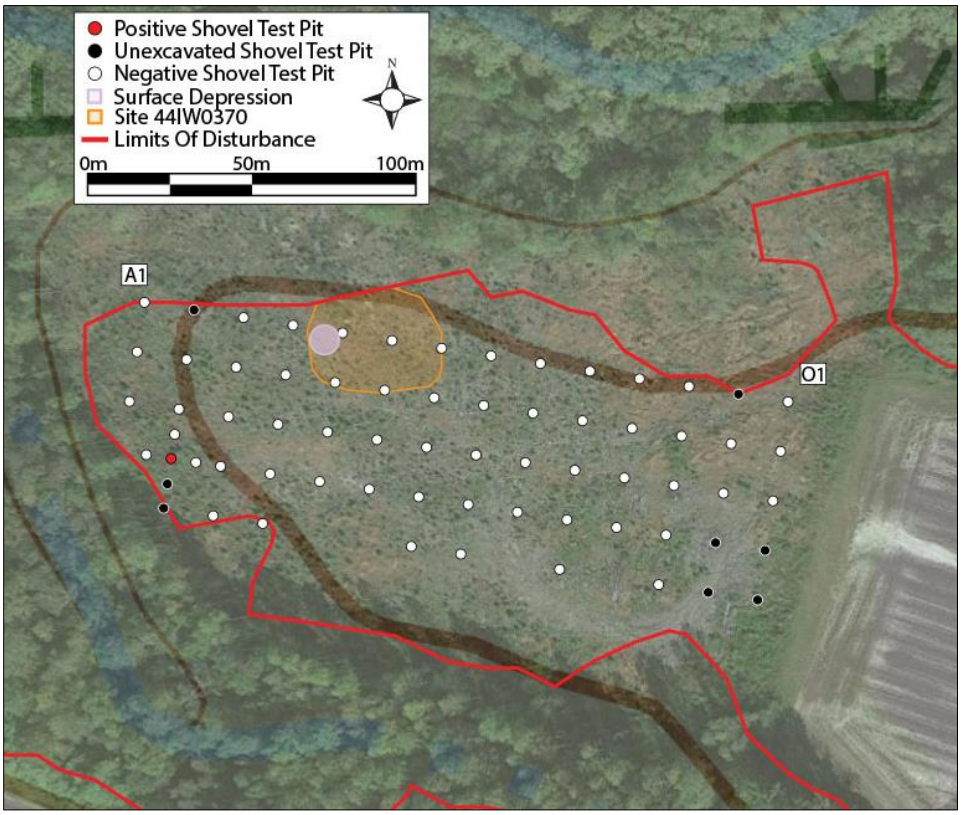


Figure 6-39: Aerial view with topographic overlay of Site 44IW0370.

The site was identified by the two main surface features that mark the site, a deep pit and a road cut (Figure 6-40). Both are located on the northern edge of the landform, overlooking the swamp. The road cut is deep and runs southeast to northwest to the swamp from the top of the landform, passing close to the pit. The pit is approximately ten feet in diameter with artifacts scattered on the edge (Figure 6-41). Artifacts found on the surface are primarily from the first quarter of the twentieth century, though no subsurface artifacts were found. No known historic maps indicate a structure in this location, though one topographic map from 1920 shows a road running through this area. Due to its recent date and the lack of subsurface integrity, this site does not offer significant research potential. Therefore, it is recommended not eligible for inclusion in the NRHP, and no further work is recommended.



Figure 6-40: Road cut leading towards Antioch Swamp, with Field Technicians to show depth, facing north.



Figure 6-41: Artifact scatter next to pit and road cut.

SITE 44IW0371

This site is in the projected location of a building depicted on a 1920 topographic map. It was found through systematic pedestrian survey, and it consisted of an approximately 0.6 hectare (1.5 acre) scatter of early-twentieth century artifacts, including whiteware, cobalt blue vessel glass, window glass, and canning jar lid liners (Figures 6-42, 6-43). This site is visible on a 1966 aerial image as a small farmstead with a dwelling and a cluster of outbuildings. By 1983 it appears to have been demolished. Early-twentieth century farmsteads are well-represented in this region, and this site does not offer significant research potential. Therefore, it is recommended not eligible for inclusion in the NRHP, and no further work is recommended.



Figure 6-42: Aerial view of Site 44IW0371. Google Earth 2019.



Figure 6-43: Artifacts found in Site 44IW0371.

Soils in this site generally exhibited a two stratum profile of plowzone over subsoil. Typical stratigraphy consisted of 10YR 4/2 dark grayish brown sand (Ap horizon) over 10YR 5/4 yellowish brown sandy clay (B horizon) (Figure 6-44).

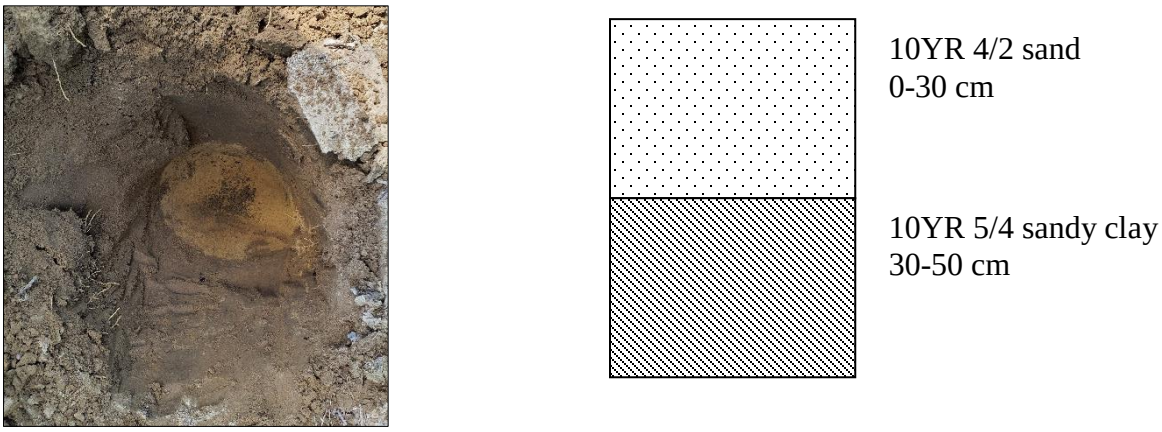


Figure 6-44: Soil profile of Judgmental Shovel Test 1 in Site 44IW0371.

SITE 44IW0372

This site is in the projected location of a building depicted on a 1920 topographic map. It was found through systematic pedestrian survey, and it consisted of an approximately 0.4 hectare (one acre) scatter of early-twentieth century artifacts located to the east and west of the farm road and including a mature hardwood and some associated rubble (Figure 6-45). Artifacts included whiteware, an aqua medicine bottle, canning jar lid liners, brick fragments, and plastic. This site is visible on a 1966 aerial image as a small farmstead with a dwelling and a cluster of outbuildings. By 1994 it appears to have been demolished. Early-twentieth century farmsteads are well-represented in this region, and this site does not offer significant research potential. Therefore, it is recommended not eligible for inclusion in the NRHP, and no further work is recommended.

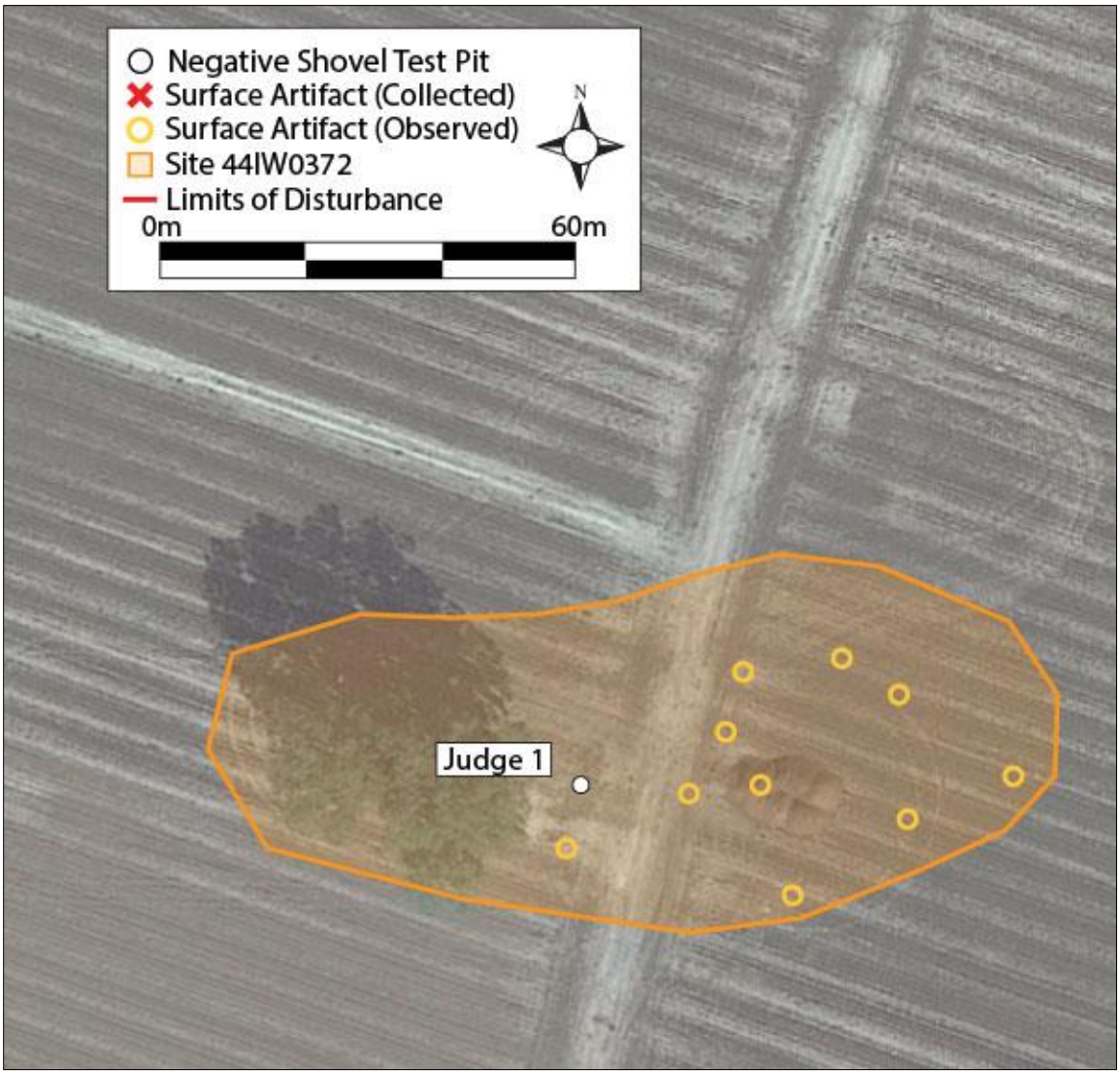
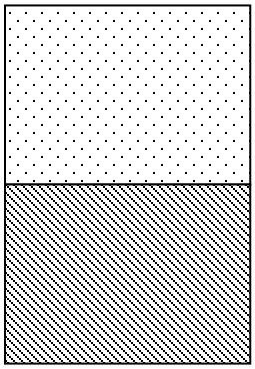


Figure 6-45: Aerial view of Site 44IW0372. Google Earth 2019.

Soils in this site generally exhibited a two stratum profile of plowzone over subsoil. Typical stratigraphy consisted of 10YR 5/4 yellowish brown sand plowzone (Ap horizon) over 10YR 6/6 yellowish brown sandy clay subsoil (B horizon) (Figure 6-46).





10YR 5/4 sand
0-48 cm

10YR 6/6 sandy clay
48-60 cm

Figure 6-46: Soil profile of Judgmental Shovel Test 1 in Site 44IW0372.

SITE 44IW0373

This site is a small cluster of historic artifacts identified through systematic pedestrian survey. Artifacts included whiteware, ironstone, milk glass, and porcelaneous: the same type of material recovered from Site 44IW0372 (Figures 6-47, 6-48). A sherd of tin-glazed earthenware was also collected. No structures are depicted in this area on historic maps and aerials, but the turn-of-the-twentieth century artifacts are likely related to the occupation of the house associated with 44IW0372. A previously recorded site, 44IW0248 is located a short distance east of this site. It consisted of a scatter of eighteenth-century material, including tin-glazed earthenware. This site was evaluated by Louis Berger in 2007 and determined not eligible for inclusion in the NRHP, and VDHR concurred with this recommendation. The tin-glazed earthenware was the only temporally associated artifact that was identified during the current survey. Because the two sites appeared to date to different time periods, the twentieth-century concentration was given a distinct site number.

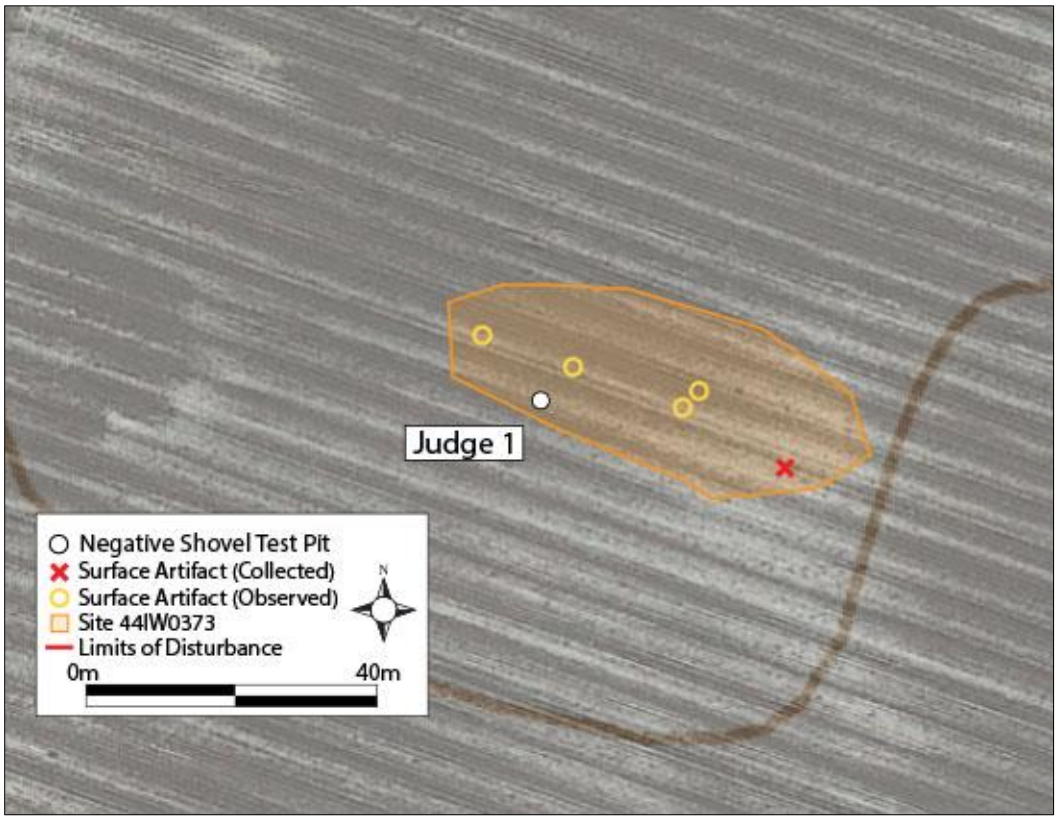


Figure 6-47: Aerial view of Site 44IW0373. Google Earth 2019.

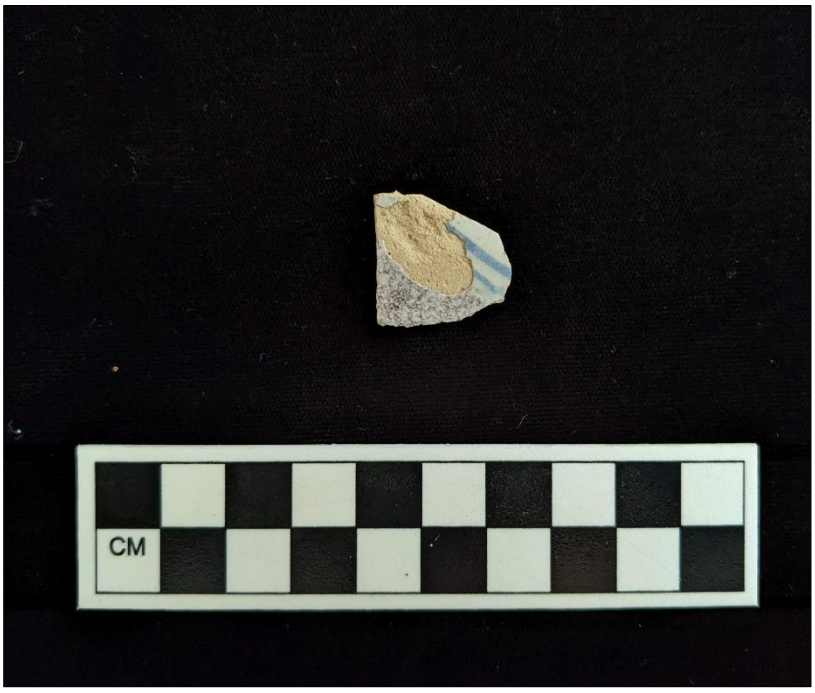


Figure 6-48: Artifact found in Site 44IW0373.

Soils in this site generally exhibited a two stratum profile of plowzone over subsoil. Typical stratigraphy consisted of 10YR 5/4 yellowish brown sand plowzone (Ap horizon) over 10YR 6/6 yellowish brown sandy clay subsoil (B horizon) (Figure 6-49).

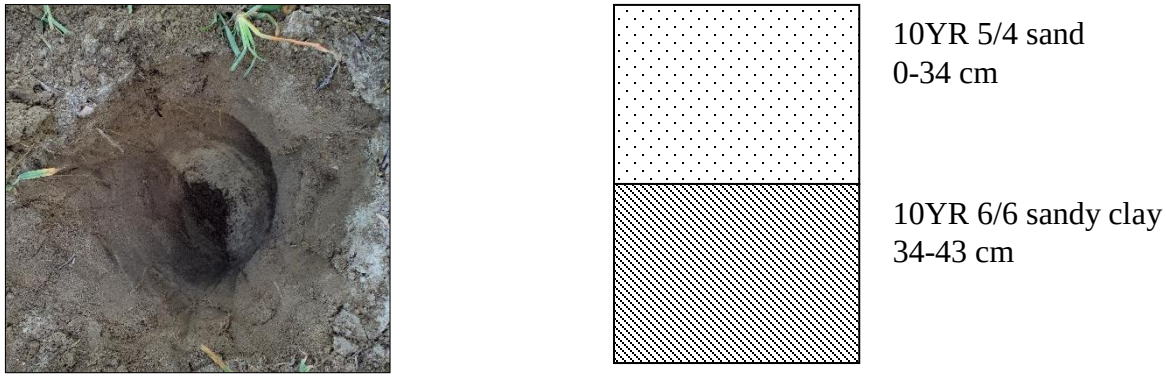


Figure 6-49: Soil profile of Judgmental Shovel Test 1 in Site 44IW0373.

AREA C

This is a narrow section connecting Areas B and D. It roughly follows a tributary of Antioch Swamp. The tract abuts Antioch Road (CR-657) to the east. The well-drained portion of this area consists of a terrace overlooking the swamp (Figure 6-50).

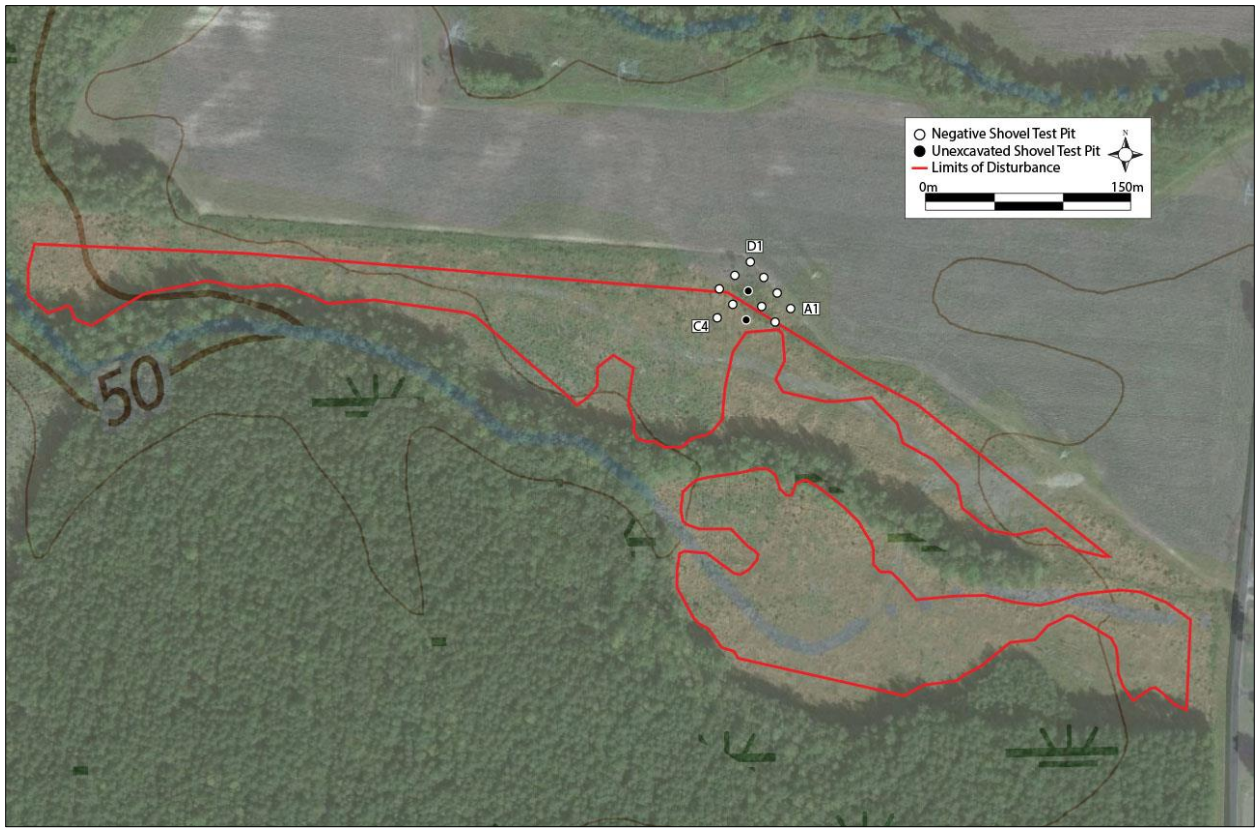


Figure 6-50: Aerial view of Area C shovel test grid. Google Earth 2019.

This area has been clearcut multiple times in the past twenty years, with the most recent episode occurring in 2021. Vegetation is primarily densely growing vines, saplings, and brambles (Figure 6-51). Disturbance in this area was severe, with large pushpiles throughout.

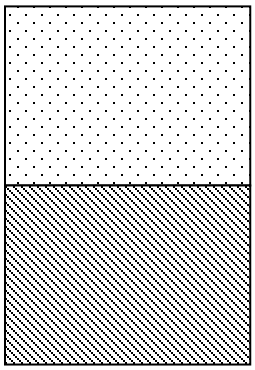


Figure 6-51: Vegetation and disturbance in Area C, facing southwest.

This area was considered high probability for presence of cultural material due to its position at the edge of agricultural fields and overlooking a tributary of Antioch to the south. Due to the disturbance, the grid was extended slightly outside of the limits of disturbance, but still within the lease area. A grid of twelve shovel test pits was laid out at 15-meter (50-foot) intervals in four transects labeled A through D. Two of these could not be excavated due to disturbance and impenetrable vegetation. Subsurface testing confirmed expected levels of disturbance. No historic surface features were observed, and no cultural material was recovered.

Disturbance in this area is severe, with towering pushpiles and uneven surfaces throughout. Soils in this site generally exhibited a two stratum profile of topsoil over subsoil. Typical stratigraphy consisted of 2.5Y 5/2 grayish brown sandy loam topsoil (A horizon) over 2.5Y 6/4 light yellowish brown sand subsoil (B horizon) (Figure 6-52).





2.5Y 5/2 sandy loam
0-26 cm

2.5Y 6/4 sand
26-36 cm

Figure 6-52: Soil profile of Shovel Test Pit C3 in Area C.

AREA D

This area consists of several contiguous parcels located to the east of Antioch Road (Figure 6-53). It is bounded to the west by the road, to the north and east by tributaries of Antioch Swamp, and to the south by parcel lines.

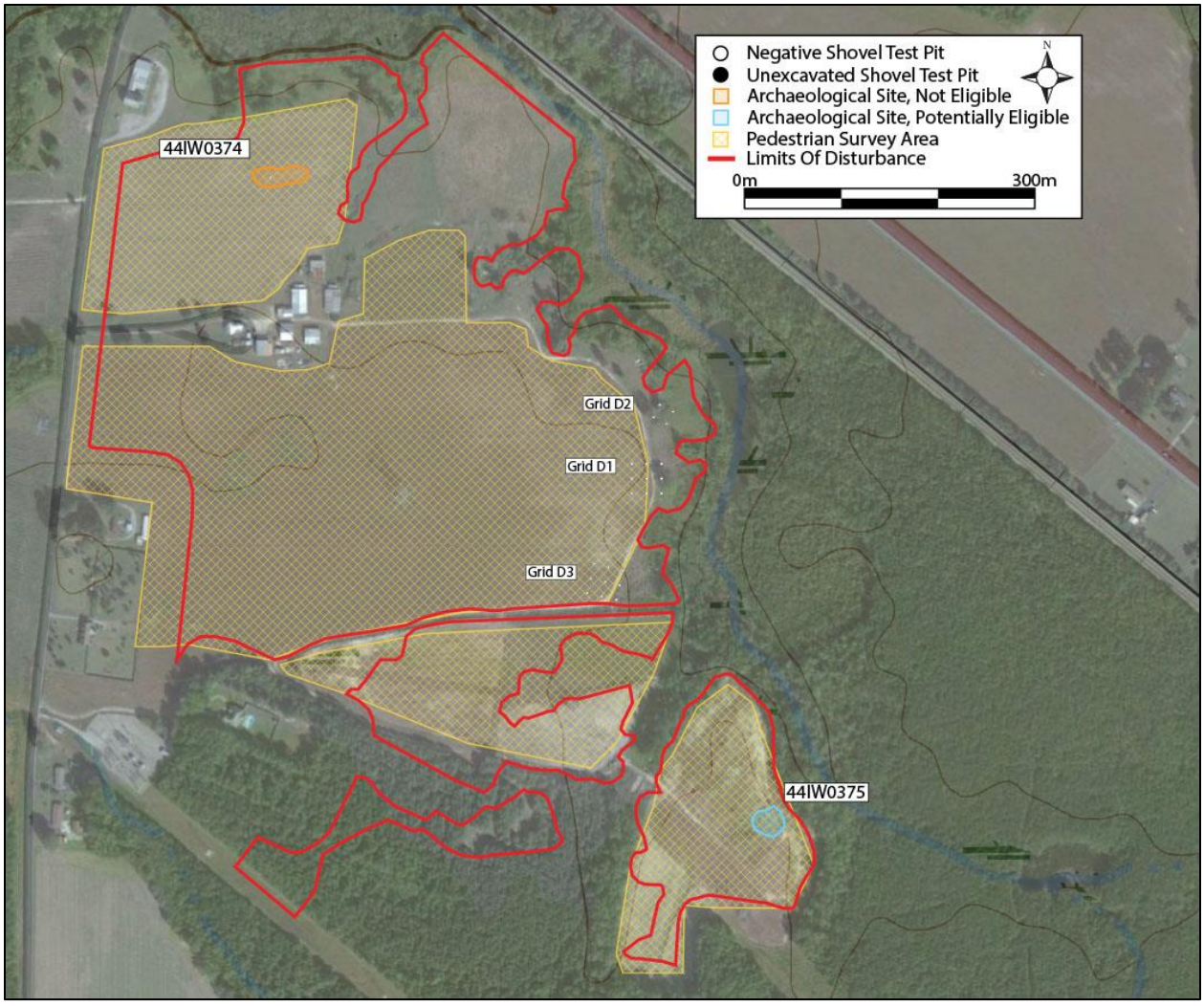


Figure 6-53: Aerial view of Area D pedestrian survey, shovel test grids, and field sites. Google Earth 2019.

A large farm complex (Resource # 046-5112) is located within the northern parcel, a historic church (Resource # 046-5154) is located to the north of the tract, and a modern dwelling is cut out of the southern parcel (Figures 6-54 through 6-56). Driveways and farm roads provide access throughout. A transmission line right-of-way extends east-to-west across the center of the southern field, then turns and continues southeast across the two smaller fields.



Figure 6-54: View north toward historic church, Resource #046-5154.



Figure 6-55: Overview of farm complex, Resource #046-5112, facing south.



Figure 6-56: View northwest of transmission line.

Terrain consists of a broad, level upland with low terraces overlooking the swamp to the north and east. Several draws drain north into the swamp. Vegetation at the time of survey consisted of a series of agricultural fields separated by the drainages. The fields on the south side of the tract were clearcut and converted from forest in 2019. Aerial imagery from that year shows drainage ditches being constructed and pushpiles scattered across the area. The fields had been recently disked and planted in corn, which was so young at the time of survey that ground surface visibility was around 90% (Figure 6-57).



Figure 6-57: Overview of vegetation and terrain in southeastern field, which was recently converted from forest.

AREA D PEDESTRIAN SURVEY

Ground surface visibility in all agricultural fields in Area D was approximately 90%, and systematic pedestrian survey was conducted at no greater than 15-meter (50-foot) intervals (Figure 6-58). Two archaeological sites were identified during this survey, Sites 44IW0374 and 44IW0375, discussed in detail below.



Figure 6-58: Typical ground surface visibility in Area D.

GRID D1

This area was considered high probability for presence of cultural material due to its position at the edge of agricultural fields and overlooking a tributary of Antioch Swamp (Figure 6-59).

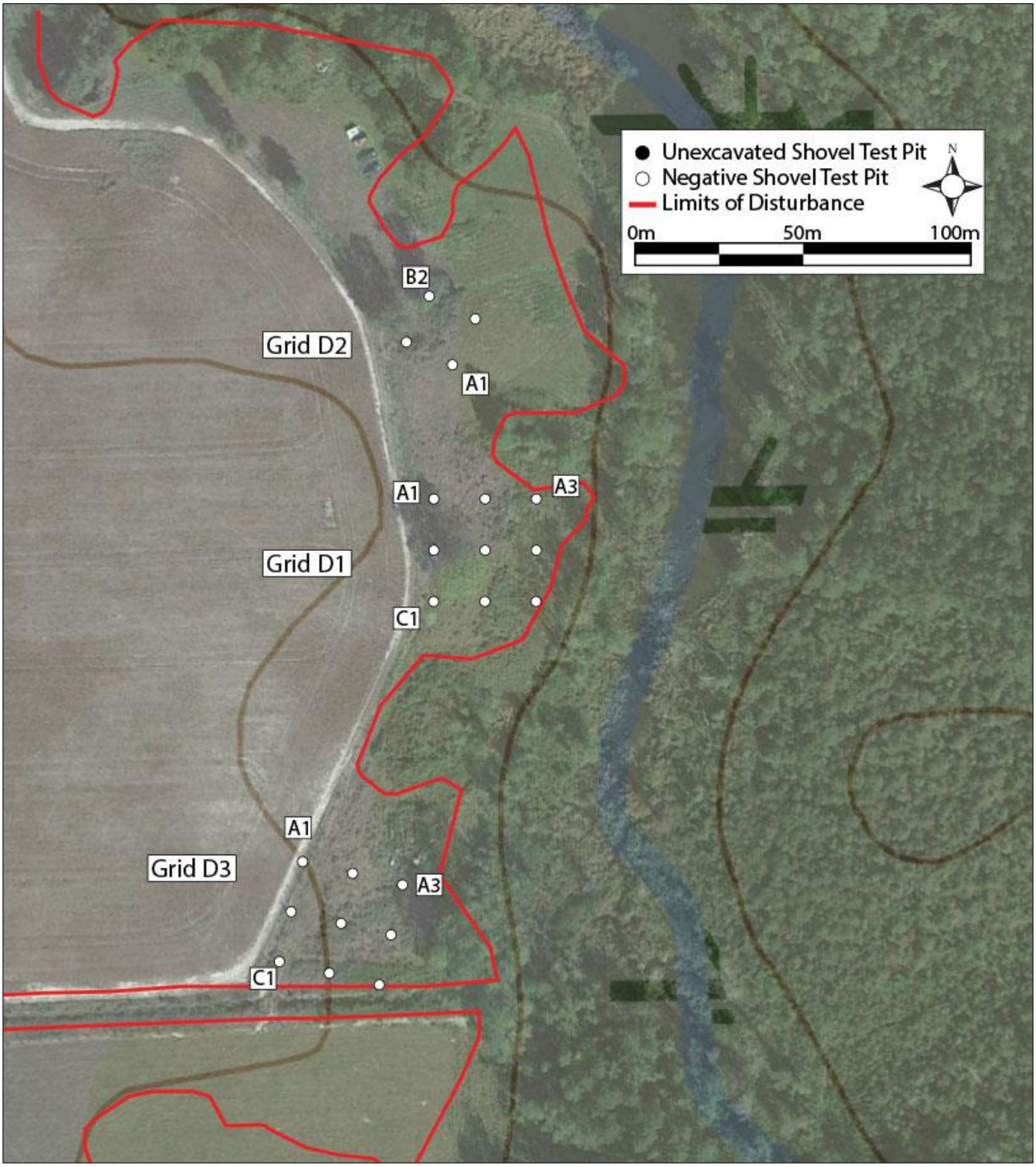


Figure 6-59: Aerial view of Area D1, D2, and D3 shovel test grids. Google Earth 2019.

Vegetation in this area primarily consisted of tall grasses, with some erosion disturbance (Figure 6-60). A grid of nine shovel test pits was laid out at 15-meter (50-foot) intervals in three transects labeled A through C. No historic surface features were observed and no cultural material was collected.



Figure 6-60: Vegetation in Area D1, facing east.

Soils consisted of a shallow, disturbed topsoil over subsoil. A typical profile consisted of 2.5Y 5/2 grayish brown sand topsoil (A horizon) over 2.5Y 6/3 light yellowish brown sandy clay subsoil (B horizon) (Figure 6-61).

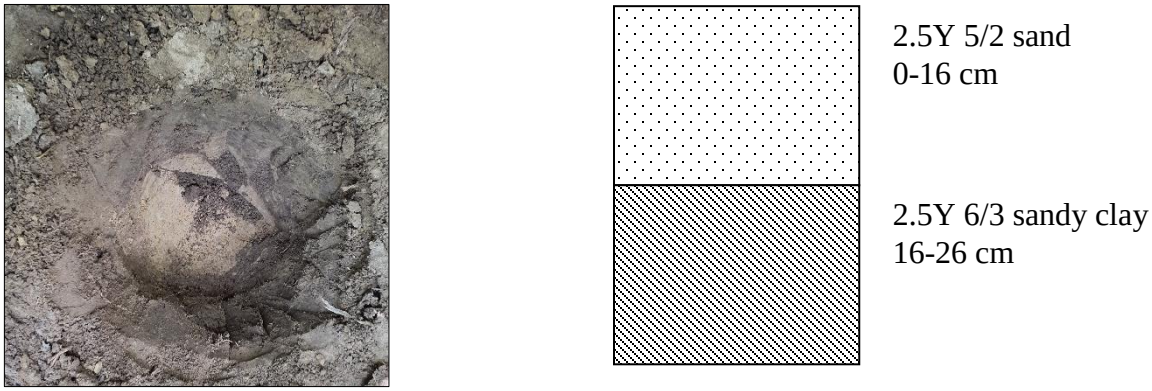


Figure 6-61: Soil profile of Shovel Test Pit B2 in Area D1.

GRID D2

This area was considered high probability for presence of cultural material due to its position at the edge of agricultural fields and overlooking a tributary of Antioch Swamp. A grid of four shovel test pits was laid out at 15-meter (50-foot) intervals in two transects labeled A and B.

Vegetation in this area primarily consisted of tall grasses, with some erosion disturbance (Figure 6-62). Soils in this area were the same as those found in Area D1. No cultural material was recovered, and no historic surface features were observed.



Figure 6-62: View northeast of swamp at the end of Grid D2.

GRID D3

This area was considered high probability for presence of cultural material due to its position at the edge of agricultural fields and overlooking a tributary of Antioch Swamp. A grid of nine shovel test pits was laid out at 15-meter (50-foot) intervals in three transects labeled A through C. No historic surface features were observed, and no cultural material was recovered.

Vegetation in this area primarily consisted of tall grasses and briars, with some erosion disturbance throughout and deep drainage cuts running along the southern part of the grid (Figure 6-63). Soils in this area were the same as those found in Area D1.



Figure 6-63: View north of vegetation and terrain at Shovel Test B3 in Grid D3.

SITE 44IW0374

This site consists of a small scatter of historic artifacts identified during pedestrian survey of the agricultural fields south of the historic Antioch Church (Figure 6-64). Artifacts found include a fragment of shell-edged whiteware, brick, and gray stoneware, which suggest mid-nineteenth century activity. The scatter covers approximately 0.1 hectare (0.2 acres). Because of its small size and the relatively low number of artifacts observed, this site is recommended not eligible for inclusion in the NRHP, and no further work is recommended

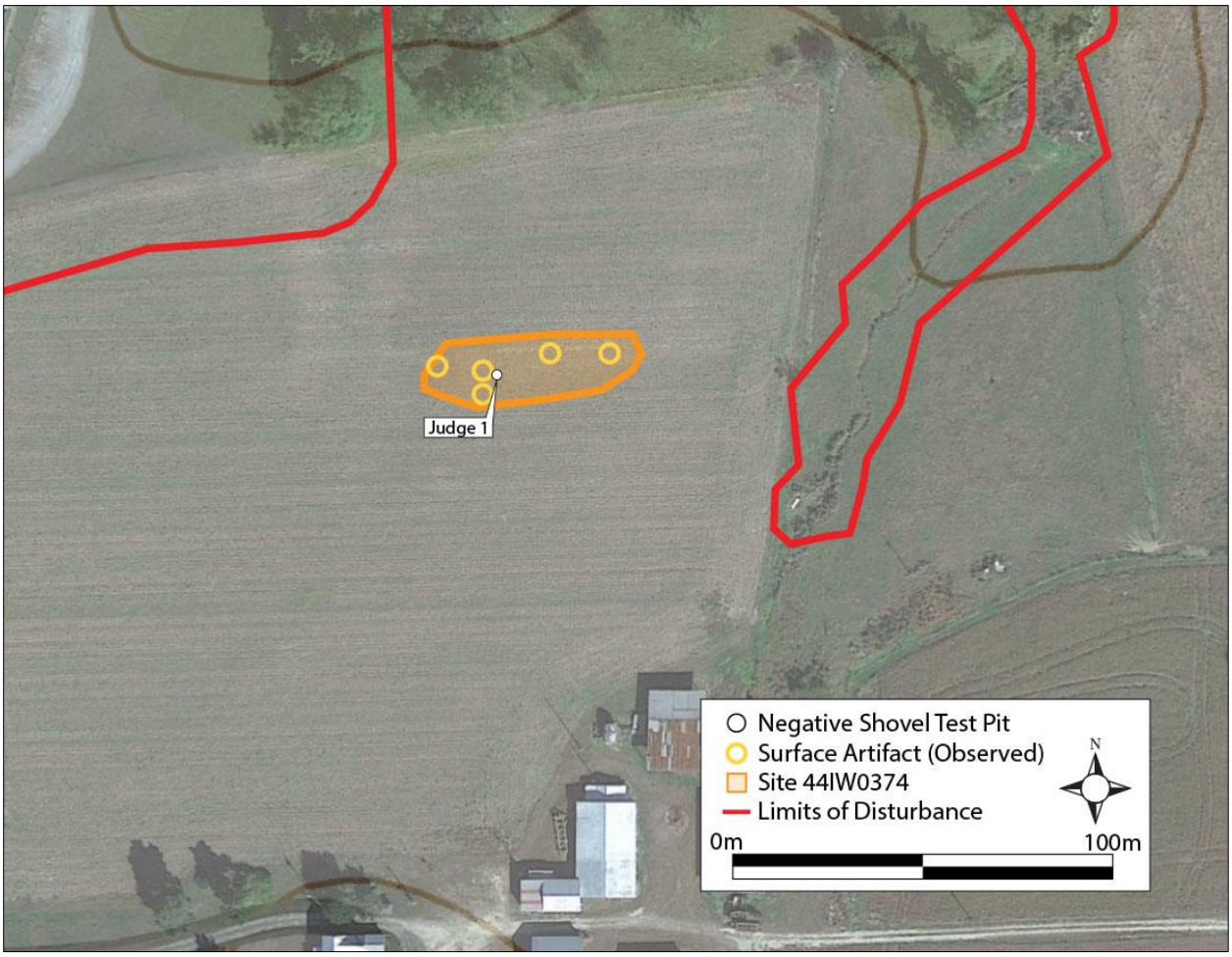
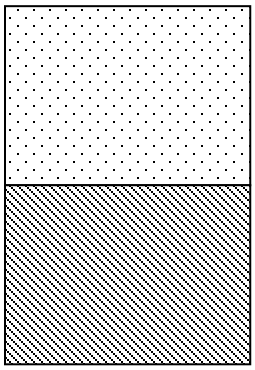


Figure 6-64: Aerial view of northern half of Area D, showing Site 44IW0374 detail. Google Earth 2019.

Soils in this site generally exhibited a two stratum profile of plowzone over subsoil. Typical stratigraphy consisted of 10YR 4/2 dark grayish brown sand (Ap horizon) over 10YR 5/4 yellowish brown sandy clay (B horizon) (Figure 6-65).





10YR 4/2 sand
0-40 cm

10YR 5/4 sandy clay
40-60 cm

Figure 6-65: Soil profile of Judgmental Shovel Test 1 in Site 44IW0374.

SITE 44IW0375

This site consists of a small scatter of historic artifacts in the southeastern part of Area D (Figure 6-66). The scatter covers approximately 0.1 hectare (0.2 acre). It was identified during pedestrian survey. Artifacts observed include yellowware, white salt glazed stoneware, redware, and wine bottle fragments, as well as a fragment of a pipe stem. These artifacts are indicative of eighteenth century activity. Due to this early date, this site has the potential to provide new information about this time period, and it is thus recommended potentially eligible for inclusion in the NRHP. Avoidance is recommended. Solar arrays will not be placed in any part of this area, so this site will not be impacted by the proposed development.

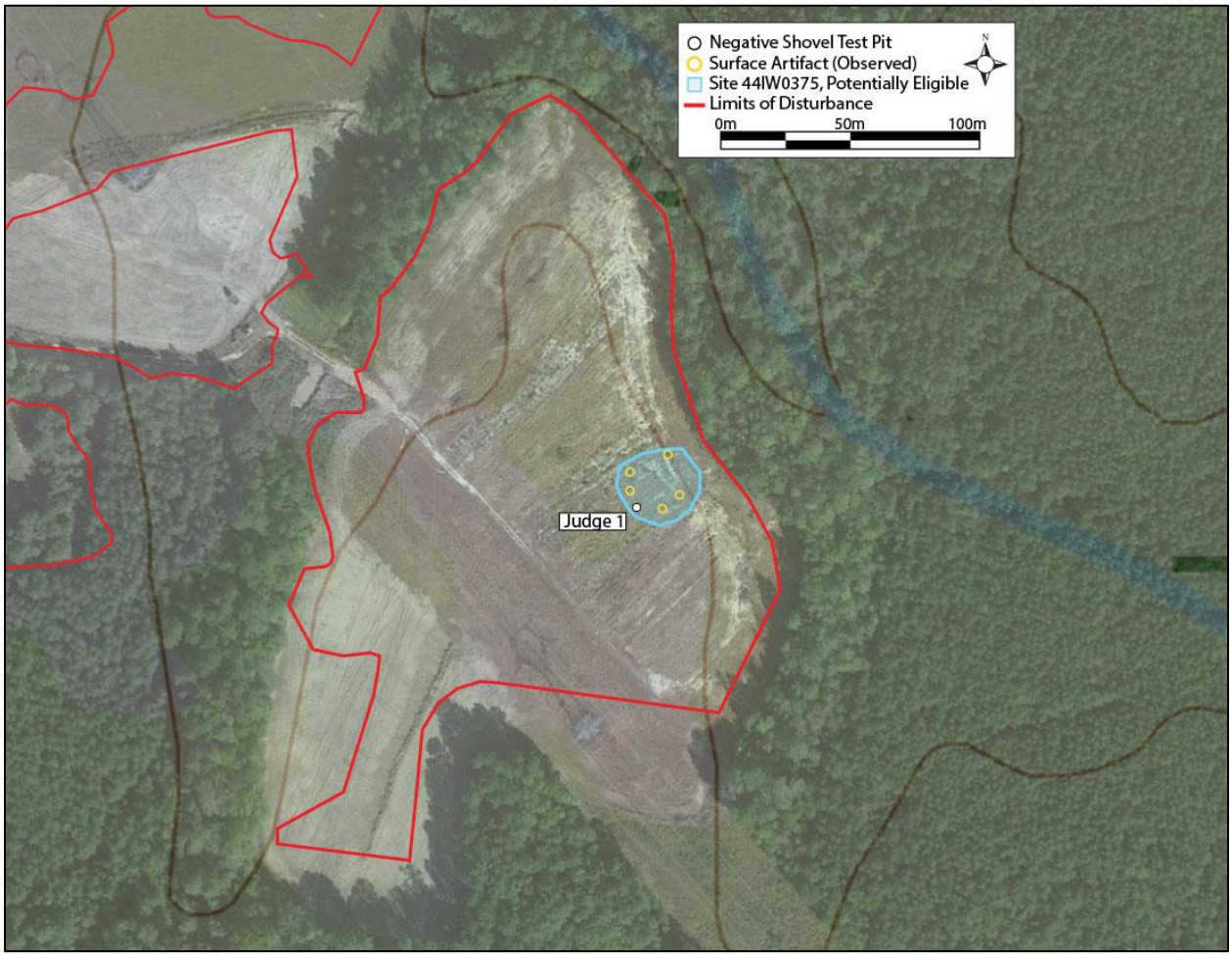


Figure 6-66: Aerial view of southern half of Area D, showing Site 44IW0375 detail. Google Earth 2019.

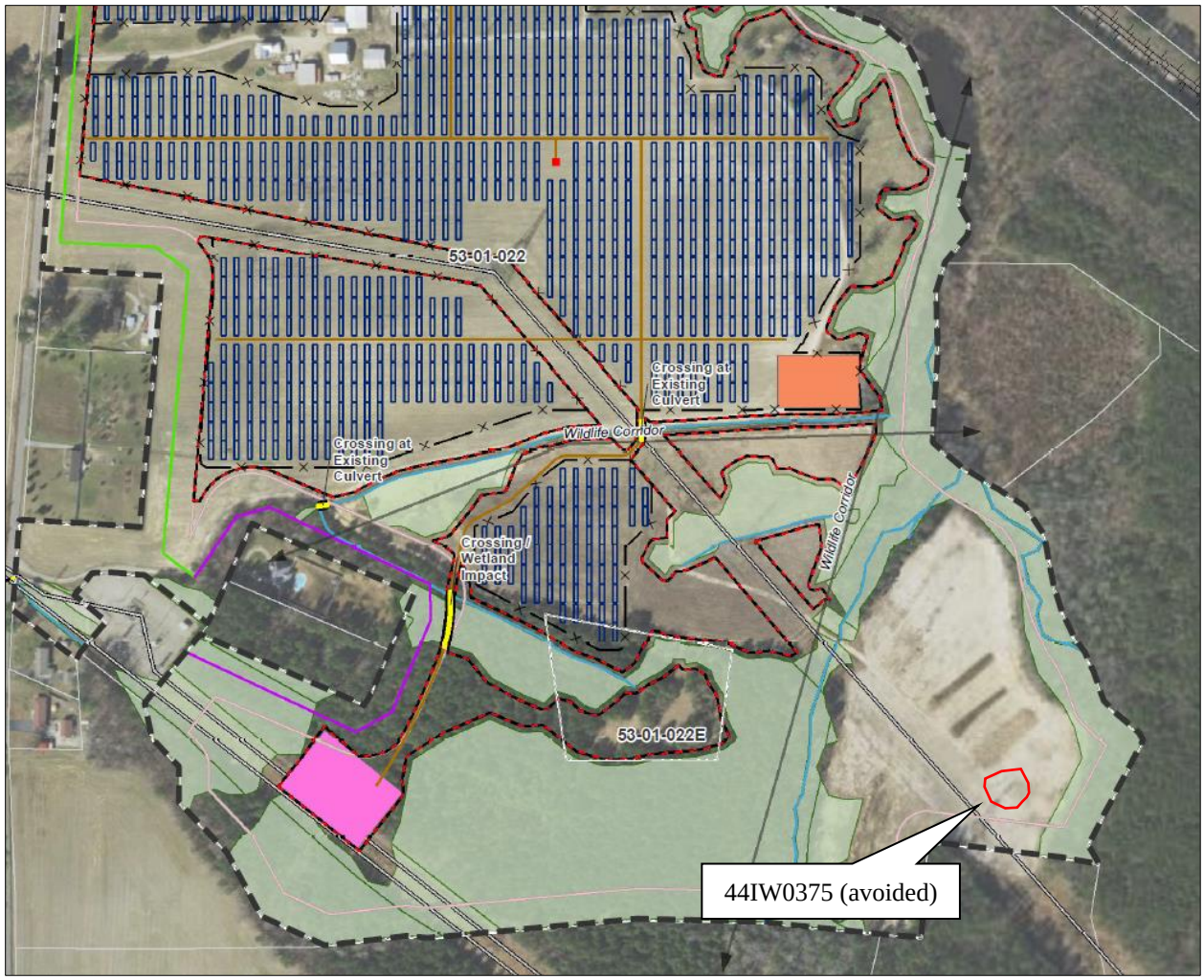
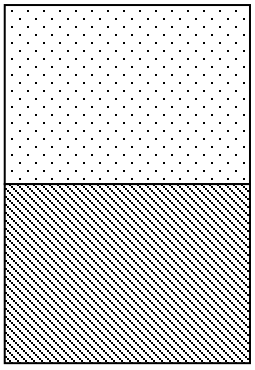


Figure 6-67: Detail of site plan with location of Site 44IW0375.

Soils in this site generally exhibited a two stratum profile of plowzone over subsoil. Typical stratigraphy consisted of 10YR 5/4 yellowish brown sand plowzone (Ap horizon) over 10YR 6/6 yellowish brown sandy clay subsoil (B horizon) (Figure 6-68).





10YR 5/4 sand
0-20 cm

10YR 6/6 sandy clay
20-30 cm

Figure 6-68: Soil profile of Judgmental Shovel Test 1 in Site 44IW0375.

AREA E

This area is situated on the north side of US-460, northwest of Area D (Figure 6-69). It consists of two parcels separated by Winston Drive (CR-639). Antioch Road (CR-638) bounds the east side of the southern parcel, and Winston Drive bounds the north side of the southern parcel and the south side of the northern parcel. A tributary of Antioch Swamp forms the eastern border of the northern parcel and the western border of the southern parcel. The southern parcel also borders US-460. Parcel boundaries make up the remaining sides of the parcels. Access is provided by these roads and by Leander Lane, which cuts diagonally across the southwestern side of the northern parcel.

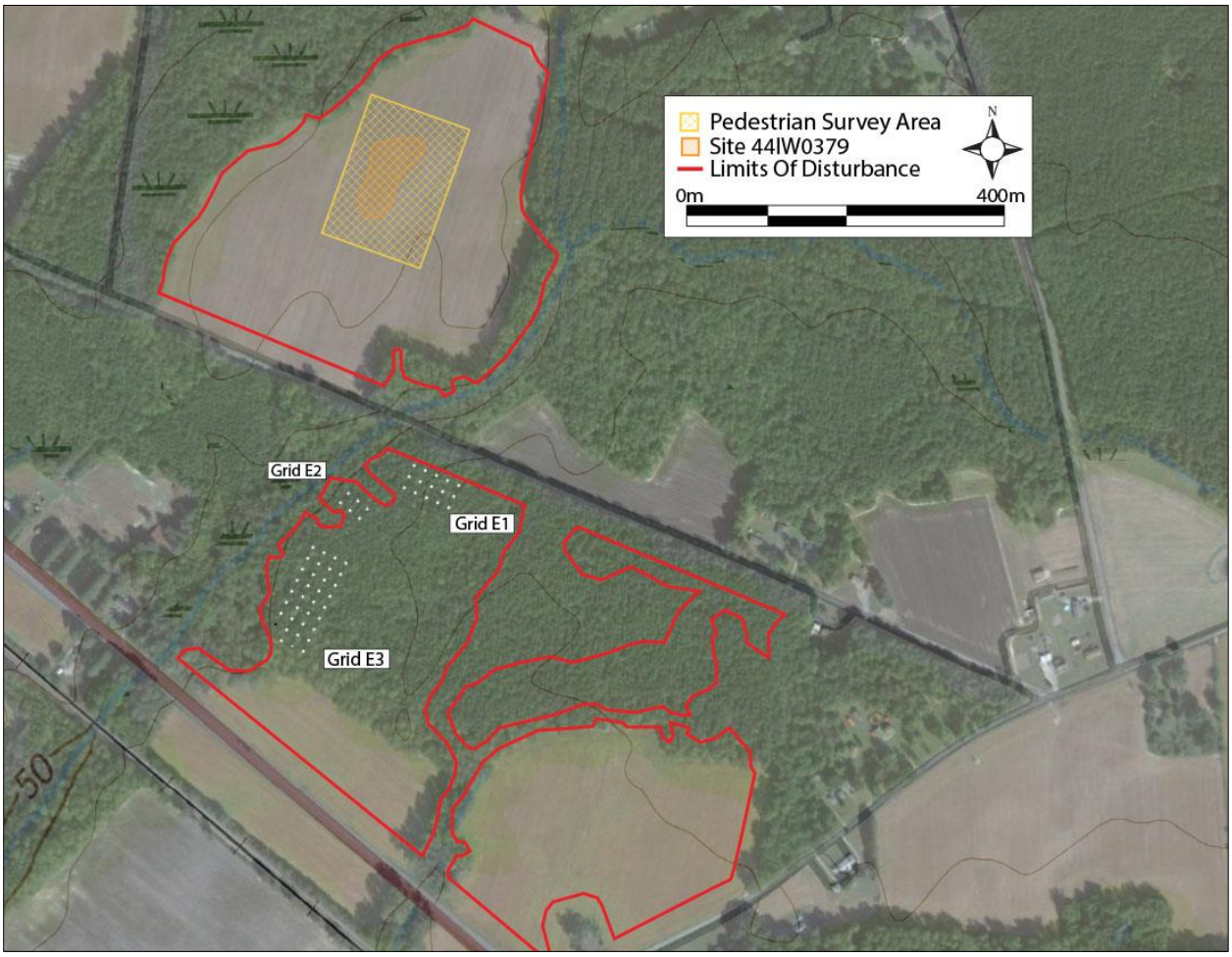


Figure 6-69: Aerial view of Area E pedestrian survey, shovel test grids, and Site 44IW0379. Google Earth 2019.

Terrain consists of two broad, low uplands divided by the tributary of Antioch Swamp. Another small drainage runs south in the center of the southern parcel. Vegetation at the time of survey consisted of recently planted agricultural fields on the well-drained portions of the parcels, and of mixed evergreen and deciduous forest in the poorly drained areas (Figure 6-70).



Figure 6-70: Drainage of Antioch Swamp in northern portion of Area E, outside of limits of disturbance.

AREA E PEDESTRIAN SURVEY

Vegetation in the northern agricultural field in Area E was cotton planted in widely spaced rows. Ground surface visibility between the rows was good (Figure 6-71; 6-72). A low landform near the center of this field was designated high probability for cultural resources due to a map projection from the early-twentieth century, and a block within this field was systematically surveyed. Pedestrian survey was conducted in transects spaced no greater than 15 meter (50 feet) apart, with more intensive inspection being conducted around any observed cultural material. Field Site 44IW0379 was delineated on top of this landform and is discussed in detail below.



Figure 6-71: View north across pedestrian survey area in northern field.



Figure 6-72: Ground surface visibility with artifacts on surface.

GRID E1

This area was considered high probability for presence of cultural material due to its position on a low, flat landform overlooking a tributary of Antioch Swamp (Figure 6-73). A grid of fifteen shovel test pits was laid out at 15-meter (50-foot) intervals in five transects labeled A through E. No historic surface features were observed and no cultural material was collected.

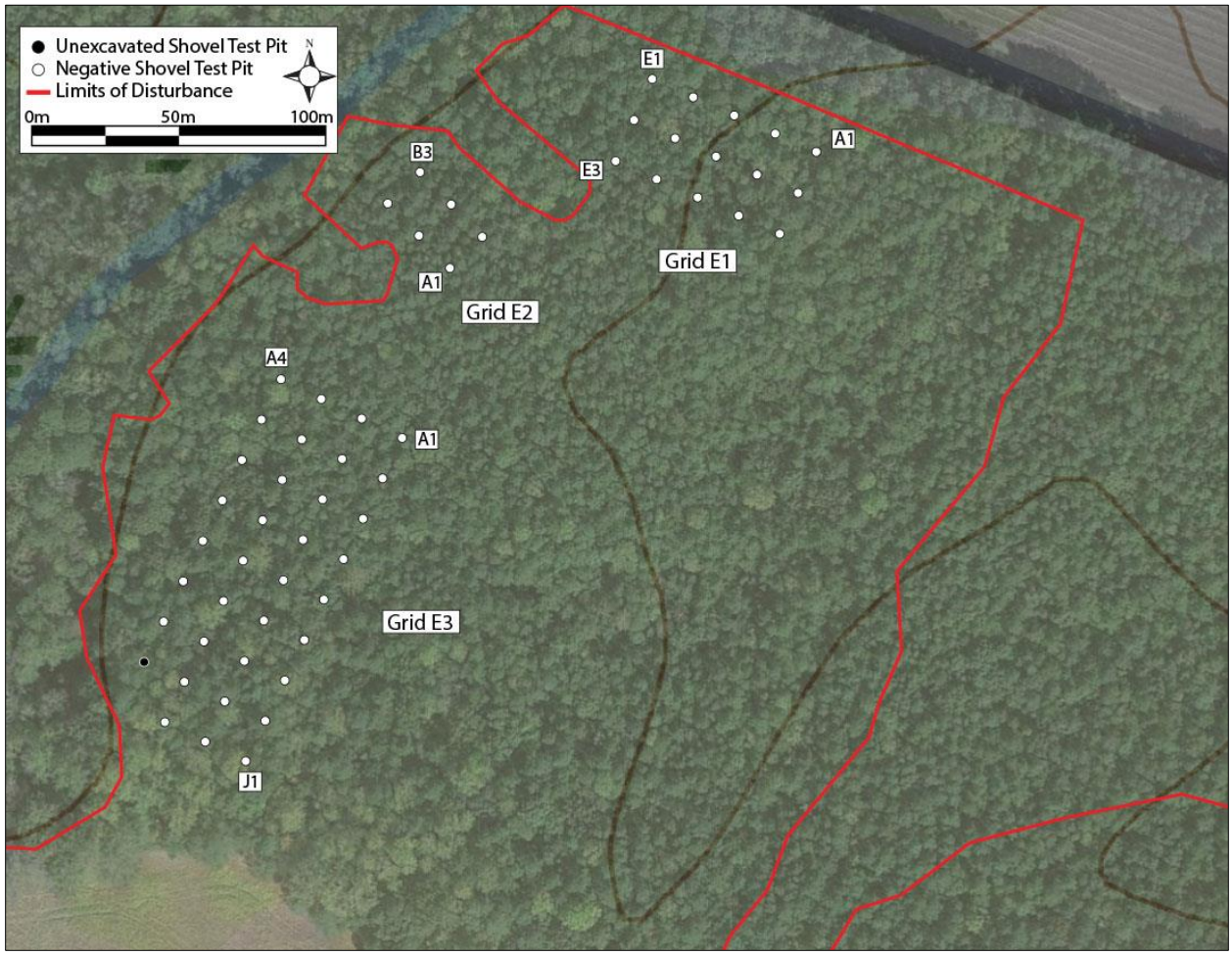


Figure 6-73: Aerial view of Area E1, E2, and E3 shovel test grids. Google Earth 2019.

Vegetation in this area consisted of mature planted pine, with few deciduous saplings throughout and moderate surface disturbance consistent with logging activity (Figure 6-74).



Figure 6-74: Vegetation and Terrain near Grid E1, typical of wooded finger ridges overlooking the swamp.

Soils in this site generally exhibited a two stratum profile of topsoil over subsoil. Typical stratigraphy consisted of 2.5Y 5/2 grayish brown sand topsoil (A horizon) over 2.5Y 6/3 light yellowish brown sand subsoil (B horizon) (Figure 6-75).

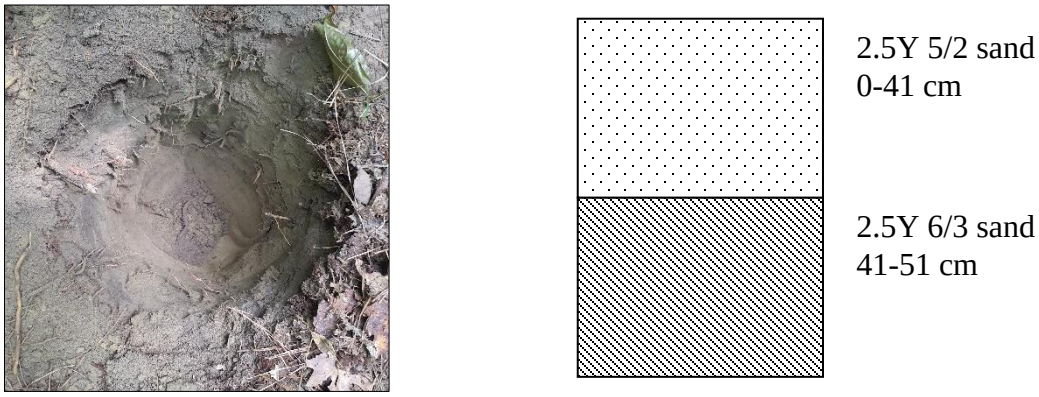


Figure 6-75: Soil profile of Shovel Test Pit C3 in Area E1.

GRID E2

This area was considered high probability for presence of cultural material due to its position on a low, flat landform overlooking a tributary of Antioch Swamp. A grid of six shovel test pits was laid out at 15-meter (50-foot) intervals in two transects labeled A and B. No historic surface features were observed, and no cultural material was collected.

Vegetation in this area consisted of mature planted pine, with few deciduous saplings throughout and moderate surface disturbance consistent with logging activity (Figure 6-76). Soils in this area were the same as those found in Area E1.



Figure 6-76: Vegetation in Grid E2, facing north.

GRID E3

This area was considered high probability for presence of cultural material due to its position on a low, flat landform overlooking a tributary of Antioch Swamp. A grid of 34 shovel test pits was laid out at 15-meter (50-foot) intervals in nine transects labeled A through J (excluding I). One of these was left unexcavated due to proximity to the project boundary. No historic surface features were observed, and no cultural material was collected.

Vegetation in this area consisted of mature planted pine, with few deciduous saplings throughout and moderate surface disturbance consistent with logging activity (Figure 6-77). Soils in this area were the same as those found in Area E1.



Figure 6-77: Vegetation in Grid E3, facing south.

SITE 44IW0379

This site sits on a low rise overlooking the field that makes up the northmost section of the E areas and consists of a cluster of early to mid-twentieth century artifacts measuring approximately 0.4 hectare (1 acre) (Figure 6-78). This site was identified by pedestrian survey executed in transects at intervals of no more than 15-meters (50-feet).

Aerial imagery from 1966 shows a farmstead with four buildings at this site. By 1982, the buildings had been demolished but not plowed under. The 1994 aerial shows that the site had been plowed and converted to agriculture by this point.

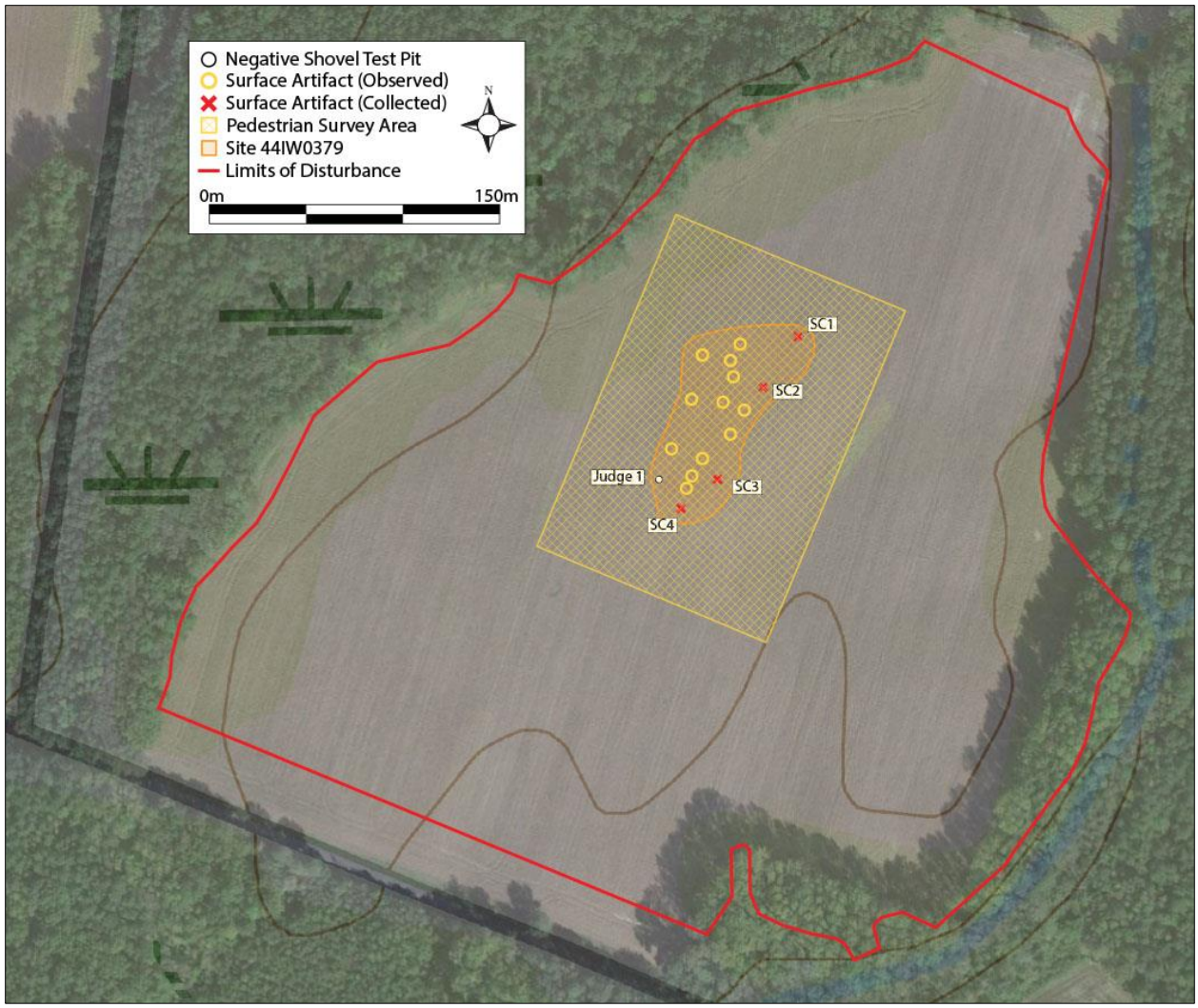


Figure 6-78: Aerial view of Site 44IW0379 and pedestrian survey.

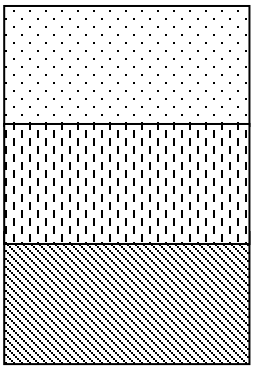
Many surface artifacts were observed, however only diagnostic or otherwise notable artifacts were collected or photographed. Artifacts recovered at this site include whole bricks, a glass marble, and colorless vessel glass (Figure 6-79). Farmstead sites are well-represented in the region; therefore, this site is not eligible for inclusion in the NRHP, and no further work is recommended.



Figure 6-79: Artifacts found in Site 44IW0379.

Soils in the plowed area generally exhibited a three stratum profile of plowzone over a disturbed layer, over subsoil. Typical stratigraphy consisted of 10YR 4/2 dark grayish brown loamy sand plowzone (Ap horizon) and 10YR 5/4 yellowish brown sandy clay loam disturbance over 10YR 5/8 yellowish brown sandy clay subsoil (B horizon) (Figure 6-80). The disturbance layer is likely the result of the demolition of the farmstead.





10YR 4/2 loamy sand
0-24 cm

10YR 5/4 sandy clay loam
24-34 cm

10YR 5/8 sandy clay
34-44 cm

Figure 6-80: Soil profile of Judgmental Shovel Test 1 in Site 44IW0379.

AREA F

This is the most northwestern tract in the survey area (Figure 6-81). It is situated north of US-460 and east of Yellow Hammer Road (CR-645). The tract is separated from Area A by Burnt Mills Swamp. A tributary of the swamp and a portion of Deerfield Drive form the eastern and northern boundaries. Farm roads and logging roads provide access into this tract.

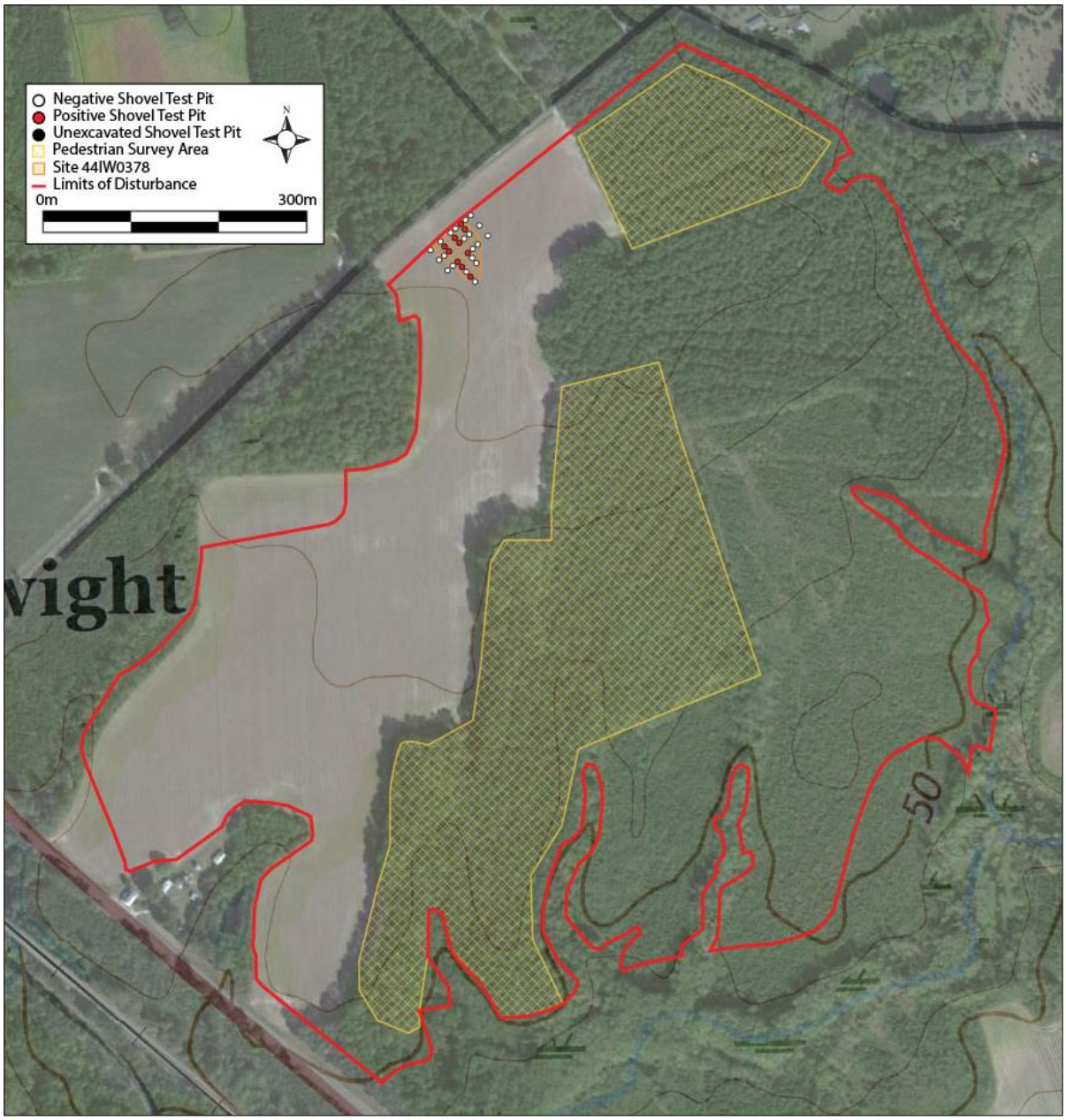


Figure 6-81: Aerial view of Area F pedestrian survey, shovel test grid, and Site 44IW0378. Google Earth 2019.

Terrain consists of a broad upland that terminates to the southeast in a series of wide, level finger ridges overlooking Burnt Mills Swamp. Vegetation at the time of survey consisted of an agricultural field on the west side of the tract and pines of the eastern side of the tract (Figures 6-, 6-82; 6-83). The fields had been planted in winter wheat that was just harvested at the time of survey, and surface visibility was lower than 50%. The stands of trees were being actively harvested at the time of survey (Figure 6-84).



Figure 6-82: Location of Area F1 grid, which was placed on a slight hummock in the field.



Figure 6-83: Logging equipment harvesting trees on finger ridges.



Figure 6-84: Recent logging on northernmost finger ridge, facing south.

GRID F1

This area was tested to investigate the location of a potential house marked on two topographical maps from 1920 and 1945 (Figures 6-85). A grid of 30 shovel tests was laid in at 15-meter (50-foot) intervals in five transects labeled A through E on the highest part of the field, near where the house is indicated on the topographical maps. Seven shovel tests were positive for cultural material, including nails, brick, and glass fragments. These artifacts and Site 44IW0378are discussed below.

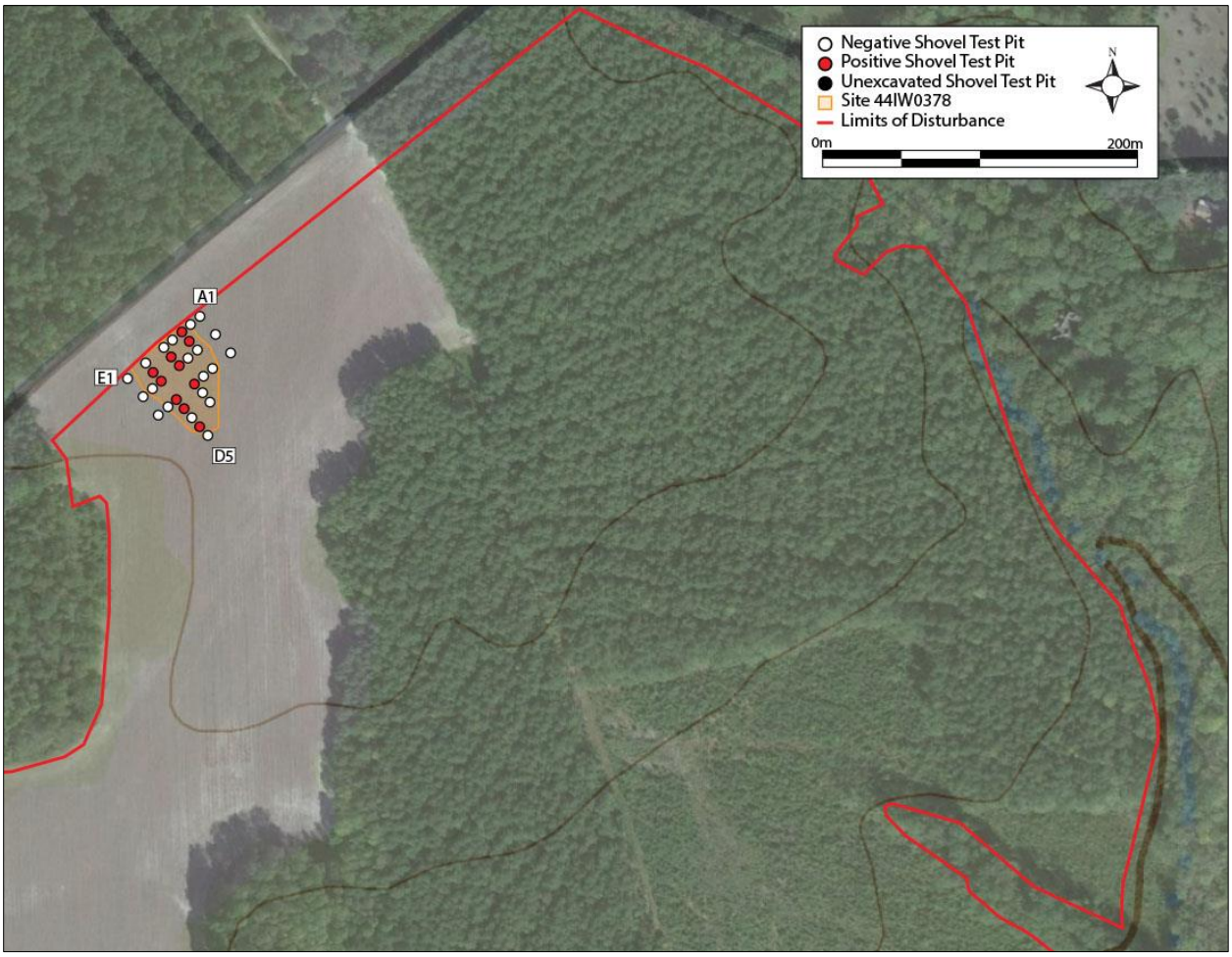


Figure 6-85: Aerial view of Area F1 shovel test grid and Site 44IW0378. Google Earth 2019.

Soils in this area generally exhibited a two stratum profile of plowzone over subsoil. A typical soil profile consisted of a 7.5YR 6/1 gray sandy loam plowzone (Ap horizon) over a 7.5YR 6/3 light brown sandy clay subsoil (B horizon). These strata are consistent with those usually seen in historically plowed fields (Figure 6-86).

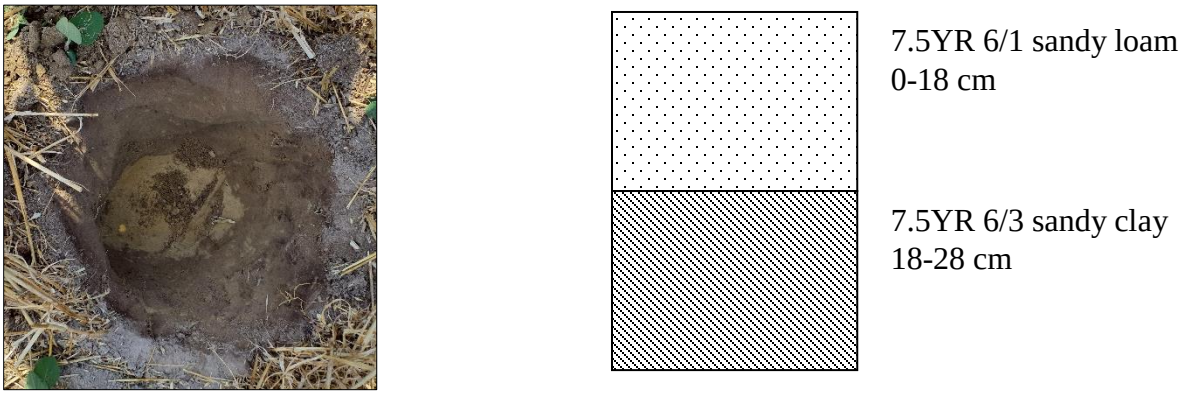


Figure 6-86: Soil profile of Shovel Test Pit A2 in Site 44IW0378.

SITE 44IW0378

This site was identified in the Area F1 grid, discussed above. No surface features remain of the structure, though some artifacts were found. The site covers approximately 0.15 hectare (0.3 acre). Artifacts found include unidentifiable nails, brick fragments, colorless vessel glass fragments, and a fragment of an aqua pharmaceutical vessel. These artifacts suggest mid-twentieth century activity, which is consistent with the evidence provided by known maps. Resources from this time period are well represented, and therefore this site is not recommended for inclusion in the NRHP and no further work is recommended.

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7. CONCLUSIONS AND RECOMMENDATIONS

From March 23 through June 3, 2022, D+A completed Phase I archaeological survey of the proposed ±309.5-hectare (±765-acre) Carver Solar project area. The archaeological survey specifically covered the ±241-hectare (±596.1-acre) fenced area of the proposed facility, which is where ground disturbance is planned for solar array installation. Survey consisted of systematic pedestrian survey and subsurface testing of areas deemed to have potential for the presence of archaeological deposits. The survey was also guided in part by the Phase IA archaeological assessment titled, *Phase IA Cultural Resource Assessment of the ±379.3 Hectares (±937.3 Acre) Carver Solar Project Area* (2021), which was prepared for the original proposed project area.

The project area is comprised of pine forests, poorly drained lowlands, and agricultural fields. Antioch Swamp runs east-west between the discontiguous parcels which comprised the project area. Likewise, Windsor Boulevard (Route 460) runs northwest-southeast through the parcels and Winston Drive runs southeast-northwest through two parcels in the eastern portion of the project area. Burnt Mill Swamp is north of the project area, and Blackwater Road is south of the project area. At the time of the survey, a large number of the project area parcels located south of Route 460 had recently been plowed and surface visibility was excellent. Some project area parcels were in pasture or winter wheat, with woodlands typically lining streams and wetlands. For most larger forested areas, timber harvesting had occurred within the last decade and in many areas visible evidence of soil disturbance such as push piles, slash, and exposed soils were still evident.

Archaeological field survey consisted of a combination of systematic pedestrian survey and subsurface shovel testing. Pedestrian survey was conducted when agricultural fields were plowed and surface visibility was greater than 50% per the Virginia Department of Historic Resources (VDHR) survey guidelines. Pedestrian survey was conducted along transects varying between 7.5 meters (25 feet) and 15 meters (50 feet) apart. For areas where surface visibility was less than 50% and where the potential for archaeological deposits was present, systematic shovel testing was conducted. A total of 261 shovel test pits were excavated.

A total of fourteen archaeological sites were identified during the survey. Four sites were identified on project area parcels north of Route 460 and the remaining ten sites on parcels south of Route 460. All identified sites date to the historic period, although some prehistoric lithic material was recovered in isolated locations in too few numbers to be classified as archaeological sites. Of the newly identified sites, the majority represent late nineteenth to mid twentieth century domestic sites with a wide date range of artifacts and no remaining structural components (Sites 44IW0367, 44IW0368, 44IW0370, 44IW0371, 44IW0372, 44IW0373, 44IW0374, 44IW0376, 44IW0377, 44IW0378, and 44IW0379). Several of these sites are illustrated on historic mapping and aerial imagery of the project area and represent common site types in the area and throughout the region. As such, these sites offer limited research value and are ***recommended as not eligible for listing in the NRHP.***

Previously identified site 44IW0248, a light scatter of eighteenth-century artifacts, was determined by VDHR to not be eligible for listing in the NRHP. A sherd of tin-glazed earthenware was the only related artifact that was recovered during the current effort. Previously recorded site 44IW0286 was not reidentified and is presumed to be located outside of the current proposed

project's limits of disturbance. This site was also previously determined by the VDHR to not be eligible for listing in the NRHP.

Sites 44IW0366, 44IW0369, and 44IW0375 contained pre-Civil War archaeological material and represent antebellum settlement and occupation in the area. Site 44IW0366 contains eighteenth and early nineteenth century domestic artifacts and represents early settlement and occupation of the area. Sites 44IW0369 and 44IW0375 both represent early nineteenth century domestic sites. Both sites are associated with early documented structures with supporting oral history. ***Based on the dates and types of material observed, D+A recommends Field Sites 44IW0366, 44IW0369 and 44IW0375 potentially eligible for listing in the NRHP.*** Avoidance or further study is recommended. No ground disturbance will take place in the location of Site 44IW0375, so this site will be avoided.

A summary of all identified sites and their potential NRHP status is provided in the table below.

Table 7-1: All identified sites and their NRHP recommendation.

Temporary Site #	Temporal Affiliation	NRHP Recommendation	Treatment
44IW0366	Mid-18th – 19th century domestic	Potentially eligible	Avoidance or Phase II Evaluation
44IW0367	Late 19th – 20th century domestic	Not eligible	No further work
44IW0368	Late 19th – 20th century domestic	Not eligible	No further work
44IW0369	Late-18th – 19th century domestic	Potentially eligible	Avoidance or Phase II Evaluation
44IW0370	Late 19th – 20th century domestic	Not eligible	No further work
44IW0371	Late 19th – 20th century domestic	Not eligible	No further work
44IW0372	Late 19th – 20th century domestic	Not eligible	No further work
44IW0373	Late 19th – 20th century domestic	Not eligible	No further work
44IW0374	Late 19th – 20th century domestic	Not eligible	No further work
44IW0375	Early 19th century domestic	Potentially eligible	Avoidance or Phase II Evaluation
44IW0376	Late 19th – 20th century domestic	Not eligible	No further work
44IW0377	Late 19th – 20th century domestic	Not eligible	No further work
44IW0378	Late 19th – 20th century domestic	Not eligible	No further work
44IW0379	Late 19th – 20th century domestic	Not eligible	No further work

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APPENDIX A: RESUMES

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Education

PhD, 2017
Anthropology
University of Tennessee
Knoxville, Tennessee

Bachelor of Arts, 2005
Historic Preservation
University of Mary Washington
Fredericksburg, Virginia

Memberships

Register of Professional Archaeologists

Society for Historical Archaeology

Dr. Smith holds a Ph.D. in Anthropology, concentrating in Historical Archaeology, from the University of Tennessee and a B.A. in Historic Preservation from the University of Mary Washington. Her dissertation research involved creating and interpreting data sets for the Digital Archaeological Archive of Comparative Slavery, and it was focused on the construction of race and identity through material culture on plantations in eighteenth-century Virginia. Her research interests include material culture studies, artifacts of personal adornment, and the intersection of race and gender.

Her experience in Cultural Resource Management includes managing a wide range of projects, including Phase I surveys, Phase II evaluations, and Phase III data recovery, for a variety of clients, including renewable energy, electric transmission, and transportation.

Dr. Smith has over 15 years of experience in archaeology. Prior to Dutton+Associates, she was employed as a Teaching Associate at the University of Tennessee, where she taught archaeology field schools and courses in archaeology, including a course on Cultural Resource Management law and practice. Before pursuing graduate studies, she worked as an archaeologist at James Madison's Montpelier, helping to identify sites associated with that enslaved community and interpret them to the public.

As a Principal Investigator for Dutton + Associates, Dr. Smith manages all aspects of archaeological research, supervising both lab and field work.

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

J. HOPE SMITH
Principal Investigator

Professional Experience

Dutton+Associates, LLC, Project Archaeologist
Richmond, Virginia, 2017
Directs operation of archaeological field and lab work. Manages and conducts archaeological investigations. Prepares research designs and excavation reports.

University of Tennessee, Knoxville, Graduate Teaching Associate
Knoxville, Tennessee, 2011-2017
Supervised fieldwork during two archaeological field schools; taught undergraduate-level archaeology courses.

James Madison's Montpelier Crew Chief
Montpelier Station, Virginia 2008-2011
Performed fieldwork and supervised students and interns in excavation and survey projects; coauthored site reports and presented research to the public.

The Louis Berger Group Field Technician
Richmond, Virginia, 2005-2007.
Performed fieldwork at all levels of excavation on a wide variety of projects.

The Ottery Group Field Technician
Silver Springs, Maryland, 2005.
Performed fieldwork on a complex multi-component historic Phase III in Gloucester, Virginia.

Example Projects and Publications

Dissertation:
Adorned Identities: an Archaeological Perspective on Race and Self-Presentation in 18th-Century Virginia

Phase I Surveys
Mecklenburg Timber and Prison sites, Mecklenburg Co
Remington to Gordonsville Transmission Line
Montebello Farm, Loudoun Co.
Arbordale, York Co.
Spotsylvania Town Center, City of Fredericksburg
Palmer's Creek, Spotsylvania Co.
Bristers to Chancellor 500kV Transmission Line
Skipjack Solar, Charles City Co

Phase II Evaluations
44LD1819, Loudoun Co
44GE0373, Greensville Co
44MC0970, Mecklenburg Co

Phase III Data Recoveries
44LD1244, Loudoun Co
44CC0448, Charles City Co
44LD1359, Loudoun Co

Museum Technical Reports
Object Report and Museum Purchasing Recommendations, The Montpelier Foundation,

Report of Archaeological Testing at Mount Pleasant, The Montpelier Foundation,

Archaeological Dataset and Context, Digital Archaeological Archive of Comparative Slavery (DAACS)

DARA FRIEDBERG
Architectural Historian

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT



Education

Master of Science, 2004
Historic Preservation
University of Pennsylvania
Philadelphia, Pennsylvania

Bachelor of Arts, 1999
Historic Preservation
Mary Washington College
Fredericksburg, Virginia

Ms. Friedberg holds a M.S. in Historic Preservation, concentrating in Architectural Conservation, from University of Pennsylvania and a B.A. in Historic Preservation from Mary Washington College. She has worked in historic preservation and conservation since 1999 and has taken part in projects in Virginia, Maryland, Pennsylvania, Washington, D.C., South Carolina, Georgia, Connecticut, New York, Illinois, Ohio, and Tennessee.

Her experience in Cultural Resource Management includes conducting field surveys, researching and documenting historic resources, preparing National Register of Historic Places nominations, performing archival research, assisting in Federal Tax Credit projects, and completing material analyses of historic mortar and paint.

Prior to working at Dutton + Associates, she was employed as a conservator. This allowed her to conduct multiple conditions assessments of architecture, monuments, and sculptures as well as provide treatment recommendations and project specifications. She has also physically worked on the conservation of stone, metal, and decorative painting. At the completion of each project she provided thorough documentation of each process undertaken.

As an Architectural Historian for Dutton + Associates, Ms. Friedberg collaborates on all aspects of historic and architectural projects including performing field work, conducting project research, and authoring project reports.

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

DARA FRIEDBERG
Architectural Historian

Professional Experience

Dutton + Associates, LLC, Architectural Historian, Midlothian, Virginia, 2013-Present
Conducts historic resources surveys, performs background research, develops historic contexts, writes National Register nominations, and authors and formats project reports

Kreilick Conservation, LLC, Conservator, Oreland, Pennsylvania, 2006-2012
Completed conditions assessments and treatment recommendations for stone and metal projects, conserved stone and metal architectural elements, monuments, and sculptures, and authored conservation reports.

Powers & Company, Inc., Preservation Associates, Philadelphia, Pennsylvania, 2002-2006
Conducted historic resources surveys, performed background research, assisted with Federal Historic Preservation Tax Credit projects, completed mortar and historic paint analyses, completed conditions assessments and recommendations for buildings, produced reports for large scale restoration projects, and created project specifications.

Albert Michaels Conservation, Inc., Conservation Technician, Harrisburg, Pennsylvania, 2001-2002
Conserved decorative paintings and refinished ornate wood, and authored conservation reports.

KCI Technologies, Inc., Cultural Resource Specialist, Hunt Valley, Maryland, 2000-2001
Conducted historic resources surveys, performed background research, and authored project reports.

Restoration Concepts, Restoration Intern, Burlington, Vermont, 1999
Assisted in the restoration of a building.

Example Projects

National Register of Historic Places Nominations
- Tower Building, Richmond
- Lee Medical Building, Richmond
- Fuqua Farm, Chesterfield

Preliminary Information Forms
- North Thompson Street Historic District, Richmond
- Virginia Avenue Elementary School, Petersburg

Interpretive Signs
- Skiffes Creek Interpretive Signs, multiple counties
- Spring Hill Plantation Interpretive Signs, Chesterfield Co.

Viewshed Analyses
- Viewshed Assessment for Fort Evans, Loudoun Co.
- Viewshed Analysis for Ellerslie, Surry Co.

Military Analyses and Landscape Studies
- Phase IA Assessment and Military Terrain Analysis of the Plantation Woods Property, Spotsylvania Co.
- Phase I, Viewshed Assessment, and Military Terrain Analysis for the Potato Run Mitigation Bank, Culpeper Co.
- Assessment of Two Core Areas of the Battle of Buckland Mills, Prince William Co.

Cultural Resource Survey and Compliance Reports
- Cultural Context and Thematic Study for the Proposed Revitalize RVA Project, Richmond
- Assessment of Fulton Gas Works, Richmond
- Documentary Study of the Cromley Row Project Area, Alexandria
- Study of Washington Boundary Ditches, Fairfax Co.
- Intensive Level Survey for Warehouse No. 3 of the Richmond Intermediate Terminal, Richmond
- Economic Context of Middlesex County and the Palmer House, Middlesex Co.
- Phase I Survey for the Remington-Gordonsville Transmission Line Rebuild Project, multiple counties
- Phase II Archaeological Evaluation of Site 44LD1244, Loudoun Co.

APPENDIX B: ARTIFACT INVENTORY

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Prov.	Strat.	Artifact	Qty.	Part	Color	Notes
Area A North (Designated in Field as Area A1)						
Surface Collection 1	**Surface**	Quartzite, Flake, tertiary	1	Flake		
Surface Collection 1	Surface	Quartzite, Fire cracked rock	1	Fragment		
Surface Collection 2	**Surface**	Quartz, Flake, tertiary	1	Flake		
Surface Collection 3	**Surface**	Glass, Fragment	1	Fragment	Brown	
Surface Collection 3	Surface	Quartzite, Culturally modified stone	1	Fragment		Unclear use
Surface Collection 3	Surface	Quartzite, Flake, tertiary	2	Flake		
Surface Collection 3	Surface	Rhyolite, Flake, tertiary	1	Flake		
Surface Collection 4	**Surface**	Quartzite, Flake, tertiary	1	Flake		
Surface Collection 5	**Surface**	Quartz, Flake, tertiary	1	Flake		
Surface Collection 6	**Surface**	Quartz, Flake, tertiary	1	Flake		
Surface Collection 7	**Surface**	Quartz, Flake, tertiary	1	Flake		
Surface Collection 8	**Surface**	Quartzite, Flake, tertiary	1	Flake		
Surface Collection 9	**Surface**	Quartzite, Fire cracked rock	1	Fragment		
Surface Collection 10	**Surface**	Composite, Pressed stone composite, molded	2	Fragment		Unclear use
Surface Collection 11	**Surface**	Lime, Fragment	1	Fragment		

Prov.	Strat.	Artifact	Qty.	Part	Color	Notes
Surface Collection 12	**Surface**	Quartz, Flake, tertiary	1	Flake		
Surface Collection 14	**Surface**	Refined Earthenware, Pearlware	1	Body		
Surface Collection 17	**Surface**	Refined Earthenware, Whiteware, handpainted	1	Rim	Red, black, green	Chrome colors
Surface Collection 20	**Surface**	Refined Earthenware, Dipped ware, Banded	1	Body	Blue, brown	
Surface Collection 21	**Surface**	Refined earthenware, Whiteware, shell edge with embossed rim	1	Rim	Blue	Embossed decoration
Surface Collection 21	Surface	Porcelain, Hard Paste	1	Body		Flat, likely plate or saucer
Area A North / 44IW0377						
Surface Collection 13	**Surface**	Refined Earthenware, Pearlware, shell edge, embossed	1	Rim	Blue	Embossed rim
Surface Collection 15	**Surface**	Porcelain, Hard Paste	1	Rim		Highly vitrified paste
Surface Collection 16	**Surface**	Stoneware, Gray salt glaze	1	Body	Gray	Black lined interior, spalling
Surface Collection 16	Surface	Glass, Bottle	1	Base	Green	Embossed "..TS.."
Surface Collection 16	Surface	Iron, Rod fragment	1	Fragment		
Surface Collection 16	Surface	Shell, Oyster	1	Fragment		
Surface Collection 16	Surface	Brick, Fragment	1	Fragment		
Surface Collection 18	**Surface**	Glass, Milk glass	1	Fragment	White	

Prov.	Strat.	Artifact	Qty.	Part	Color	Notes
Surface Collection 18	Surface	Refined earthenware, Creamware	1	Base		
Surface Collection 18	Surface	Refined Earthenware, Whiteware	1	Body		
Surface Collection 18	Surface	Synthetic, Shooting disc	1	Fragment	Black, Yellow	
Surface Collection 19	**Surface**	Refined Earthenware, Whiteware, decal decorated	1	Body		Molded dot decoration, floral decal overglaze decoration partially missing.
Surface Collection 22	**Surface**	Coarse Earthenware, Drain pipe	1	Fragment	Black	14.8mm thick.
Surface Collection 23	**Surface**	Glass, Vessel	1	Fragment	Brown	Impressed groove in one side,
Surface Collection 23	Surface	Glass, Melted	1	Fragment	Brown	Melted brown glass mass.
Surface Collection 23	Surface	Terracotta, Fragment	1	Fragment		Partially burned
Surface Collection 24	**Surface**	Refined Earthenware, Blue glazed	1	Body	Blue	Likely whiteware
Surface Collection 24	Surface	Refined Earthenware, Whiteware	1	Base		Shallow basering
Surface Collection 24	Surface	Mortar, Fragment	1	Fragment		
Surface Collection 25 / Quadrant W	**Surface**	Refined Earthenware, Unidentifiable	1	Body	Blue	Majority of glaze missing, blue and white stripes remain
Surface Collection 25 / Quadrant W	Surface	Glass, Jar	1	Body	Aqua	Ball Jar, partial embossing.
Surface Collection 25 / Quadrant W	Surface	Glass, Vessel	1	Base	Solarized	14.3mm thick

Prov.	Strat.	Artifact	Qty.	Part	Color	Notes
Surface Collection 25 / Quadrant W	Surface	Glass, Vessel	1	Body	Colorless	
Surface Collection 25 / Quadrant W	Surface	Synthetic, Plastic	1	Fragment	White	
Surface Collection 26 / Quadrant E	**Surface**	Refined Earthenware, Whiteware, decal decorated	1	Rim		Molded dot decoration along rim, floral decal overglaze decoration ghost
Surface Collection 26 / Quadrant E	Surface	Iron, Nail, unidentifiable	2	Whole		Heavily corroded.
Surface Collection 27 / Quadrant N	**Surface**	Refined Earthenware, Ironstone	1	Rim		Chamber pot rim
Surface Collection 27 / Quadrant N	Surface	Refined Earthenware, Ironstone	1	Footring		Plate or shallow bowl base, footring
Surface Collection 27 / Quadrant N	Surface	Refined Earthenware, Pearlware, shell edge impressed lines, brush strokes	1	Rim	Blue	
Surface Collection 27 / Quadrant N	Surface	Refined Earthenware, Pearlware	1	Base		
Surface Collection 27 / Quadrant N	Surface	Refined Earthenware, Whiteware	1	Rim		
Surface Collection 27 /	Surface	Refined Earthenware, Pink glaze	1	Body		Possibly Fiesta ware

Prov.	Strat.	Artifact	Qty.	Part	Color	Notes
Quadrant N						
Surface Collection 27 / Quadrant N	Surface	Stoneware, Bristol Glazed	1	Rim		
Surface Collection 27 / Quadrant N	Surface	Stoneware, Salt glazed	1	Base		
Surface Collection 27 / Quadrant N	Surface	Glass, Milk glass, vessel	1	Base, body	White	Pond's Cream, Battleship shape
Surface Collection 27 / Quadrant N	Surface	Glass, Vessel	1	Rim	Colorless	Machine-made jar rim
Surface Collection 27 / Quadrant N	Surface	Glass, Vessel	1	Body	Aqua	
Surface Collection 27 / Quadrant N	Surface	Glass, Vessel	1	Body	Dark Aqua	
Surface Collection 27 / Quadrant N	Surface	Glass, Vessel	1	Whole		
Surface Collection 27 / Quadrant N	Surface	Iron, Nail, unidentifiable	1	Whole		
Surface Collection 28 / Quadrant S	**Surface**	Brick, Whole	1	Body	Colorless	Paneled corned

Prov.	Strat.	Artifact	Qty.	Part	Color	Notes
Surface Collection 28 / Quadrant S	Surface	Glass, Vessel	3	Body		
Surface Collection 28 / Quadrant S	Surface	Refined Earthenware, Whiteware	1	Fragment	White	
Surface Collection 28 / Quadrant S	Surface	Plastic, Fragment	1	Fragment		Unknown form and use
Area A South (Designated in Field as Area A2)						
Surface Collection 1	**Surface**	Stoneware, Black glazed	1	Body	Black	Heat exposed
Surface Collection 21	**Surface**	Refined Earthenware, Whiteware, shell edge	1	Rim	Blue	Unscalloped rim with impressed lines
Surface Collection 22	**Surface**	Refined Earthenware, Yellowware	1	Body	Blue, White	Banded
Surface Collection 22	Surface	Refined Earthenware, Yellowware	1	Rim	Blue, White	Banded
Surface Collection 23	**Surface**	Glass, Milk glass, vessel	1	Base	White	"Resinol" cream, Embossed "...O' MD Chemical Co"
Surface Collection 24	**Surface**	Stoneware, Bristol glaze, albany slip	1	Body		
F1	**I**	Glass, Window	5	Pane	Aqua	
F1	I	Glass, Window	2	Pane	Colorless	
F1	I	Iron, Nail, unidentifiable	1	Shank		
F1	I	Iron, Fragment	2	Fragment		
Area A South / 44IW0376						
Surface Collection 2	**Surface**	Glass, Marble	1	Whole	Blue, White	Opaque, 16.4mm diameter
Surface Collection 3	**Surface**	Refined Earthenware,	1	Body	Blue, White	Banded

Prov.	Strat.	Artifact	Qty.	Part	Color	Notes
		Dipped ware, banded				
Surface Collection 3	Surface	Glass, Milk glass, vessel	1	Base	White	Pond's Cream, Battleship shape.
Surface Collection 4	**Surface**	Glass, Milk glass, vessel	1	Base, body	White	Reeded rectangular bottle, no markings.
Surface Collection 4	Surface	Glass, Bottle	2	Body	Brown	Beer bottle
Surface Collection 4	Surface	Glass, Bottle	1	Body	Light green	Ridged exterior.
Surface Collection 4	Surface	Glass, Vessel	1	Body	Green	
Surface Collection 4	Surface	Glass, Fragment	1	Fragment	Solarized	
Surface Collection 4	Surface	Glass, Vessel	1	Finish	Colorless	Wide mouth, threaded
Surface Collection 4	Surface	Glass, Bottle	1	Finish	Colorless	Crown cap
Surface Collection 4	Surface	Glass, Vessel	1	Base	Colorless	
Surface Collection 4	Surface	Brick, Fragment	1	Fragment		
Surface Collection 4	Surface	Iron, Nail, unidentifiable	1	Shank		
Surface Collection 4	Surface	Composite, Ceramic fuse	1	Whole		
Surface Collection 5	**Surface**	Refined Earthenware, Whiteware, decal decorated	1	Rim	Green	Molded dot decoration along rim, floral decal overglaze decoration
Surface Collection 5	Surface	Refined Earthenware, Whiteware, decal decorated	1	Body		Ghost of overglaze leaf decoration.
Surface Collection 5	Surface	Stoneware, Bristol glaze	1	Body		Greyish cast, smooth glaze on interior and exterior.

Prov.	Strat.	Artifact	Qty.	Part	Color	Notes
Surface Collection 5	Surface	Glass, Milk glass, molded	1	Rim	White	Molded paned on face with stippled texture on reverse
Surface Collection 5	Surface	Glass, Bottle	1	Body	Light green	
Surface Collection 5	Surface	Glass, Milk glass, molded vessel	1	Lid	White	Paneled edges, threaded lid
Surface Collection 5	Surface	Glass, Window	1	Pane	Aqua	
Surface Collection 5	Surface	Glass, Melted	1	Fragment	Colorless	
Surface Collection 5	Surface	Synthetic, Plastic	1	Fragment	Black	
Surface Collection 6	**Surface**	Glass, Bead	1	Whole	Blue	10.3mm diameter
Surface Collection 7	**Surface**	Stoneware, Bristol glaze	1	Body		Glaze on both sides
Surface Collection 7	Surface	Glass, Pressed disc	1	Fragment	Red	Red glass disc with pressed diamond pattern, unclear use.
Surface Collection 7	Surface	Brick, Fragment	1	Fragment		
Surface Collection 7	Surface	Iron, Nail, unidentifiable	1	Fragment		Heavily corroded
Surface Collection 8	**Surface**	Glass, Bottle	1	Finish	Light blue	Flat tooled finish
Surface Collection 8	Surface	Glass, Milk glass, vessel	1	Base	White	Battleship shape, embossed "POND'S"
Surface Collection 8	Surface	Iron, Nail, unidentifiable	1	Whole		Possibly wire, heavily corroded.
Surface Collection 9	**Surface**	Glass, Milk glass, vessel	1	Base	White	Possibly Vaseline.
Surface Collection 9	Surface	Refined Earthenware, Teal glazed, white banded	1	Base	Light Blue	Possibly mixing bowl, likely early 20th century.

Prov.	Strat.	Artifact	Qty.	Part	Color	Notes
Surface Collection 10	**Surface**	Porcelain, Hard paste	1	Fragment		Unclear use
Surface Collection 10	Surface	Stoneware, Bristol glaze, albany slip	1	Base		
Surface Collection 10	Surface	Glass, Vessel	1	Body	Colorless	
Surface Collection 10	Surface	Synthetic, Plastic	1	Fragment	Tan	Rounded edge, no identifiable markings
Surface Collection 10	Surface	Iron, Nail, unidentifiable	1	Whole		
Surface Collection 12	**Surface**	Glass, Milk glass, molded	1	Lid	White	Fluted Milk glass jar lid, threaded.
Surface Collection 12	Surface	Coarse Earthenware, Drain pipe	1	Fragment	Red	
Surface Collection 12	Surface	Glass, Melted	1	Fragment	Brown	Melted brown glass mass
Surface Collection 12	Surface	Porcellaneous, Fragment	1	Fragment	Black	Black rim, possibly ceramic conductor or electrical fragment
Surface Collection 13	**Surface**	Glass, Marble	1	Whole	Yellow, white, green	Translucent, 20.8mm diameter.
Surface Collection 13	Surface	Refined Earthenware, Whiteware	1	Body		No crazing.
Surface Collection 13	Surface	Glass, Milk glass, molded	1	Rim	White	Molded paned on face with stippled texture on reverse
Surface Collection 13	Surface	Glass, Opalescent glass, vessel	1	Rim		Ornately decorated beaded rim and dot design on exterior.
Surface Collection 13	Surface	Glass, Vessel	1	Rim	Pink	Rose colored. Triangular reeding on exterior.
Surface Collection 13	Surface	Glass, Vessel	1	Body	Blue	Cobalt blue
Surface Collection 13	Surface	Glass, Vessel	1	Body	Black	Unclear use

Prov.	Strat.	Artifact	Qty.	Part	Color	Notes
Surface Collection 13	Surface	Glass, Vessel	1	Base	Light Green	Likely ashtray or dish, Fluted molding on base.
Surface Collection 13	Surface	Glass, Vessel	1	Lid	Colorless	Decorative candy dish lid, molded design.
Surface Collection 14	**Surface**	Synthetic, Bead	1	Fragment	Blue, white	Six ridged star bead, blue and white marbled color
Surface Collection 14	Surface	Refined Earthenware, Whiteware, decal decorated	1	Body	Blue	Blue floral decal overglaze.
Surface Collection 14	Surface	Refined Earthenware, Whiteware	1	Body		Undecorated, no crazing
Surface Collection 14	Surface	Glass, Vessel	1	Body	Light green	Fluted exterior
Surface Collection 14	Surface	Glass, Bottle	1	Body	Green	Soft drink or beer bottle
Surface Collection 14	Surface	Glass, Safety	1	Fragment	Colorless	
Surface Collection 15	**Surface**	Stoneware, Albany slip	1	Body	Brown	
Surface Collection 15	Surface	Glass, Vessel	1	Body	Blue	
Surface Collection 15	Surface	Glass, Bottle, square cosmetic	1	Base, body	Colorless	"DES PAT. APPL'D FOR"
Surface Collection 15	Surface	Refined Earthenware, Whiteware, fluted molded rim, green strip, hand-painted green leaf	1	Rim	Green	
Surface Collection 15	Surface	Glass, Bottle, soft drink, screw top	1	Neck, rim	Colorless	Screw top soft drink bottle, plastic cap
Surface Collection 16	**Surface**	Glass, Milk glass	1	Body	White	Embossed scalloped line detail.

Prov.	Strat.	Artifact	Qty.	Part	Color	Notes
Surface Collection 16	Surface	Glass, Milk glass	1	Base	Green	Fire King Jadeite
Surface Collection 17	**Surface**	Refined Earthenware, Whiteware	1	Body		
Surface Collection 17	Surface	Glass, Vessel, paneled pharmaceutical bottle	1	Body	Light blue	
Surface Collection 17	Surface	Glass, Vessel, vaseline glass	1	Body	Yellow	
Surface Collection 18	**Surface**	Brick, Fragment	1	Fragment		
Surface Collection 18	Surface	Stoneware, Bristol glaze, albany slip	1	Body		
Surface Collection 19	**Surface**	Glass, Milk glass, molded	1	Lid	White	Fluted Milk glass jar lid, threaded. Embossed "7", "4", and "23"
Surface Collection 20	**Surface**	Porcelain, Soft paste	1	Body	White	Heavily scratched, no decoration.
A(-A)1	**I**	Glass, Vessel	2	Body	Aqua	Partial embossing, only "…UP" legible
A(-A)1	I	Glass, Vessel	1	Body	Colorless	
A1	**I**	Glass, Vessel	1	Body	Colorless	
A1	I	Glass, Vessel	1	Body	Aqua	
A1	I	Glass, Window	1	Pane	Aqua	
A1	I	Iron, Nail, unidentifiable	1	Fragment		
B1	**I**	Glass, Vessel	1	Body	Colorless	Lightly solarized
B1	I	Synthetic, Rubberized plastic	1	Fragment	Black	
C1	**I**	Iron, Nail, unidentifiable	N/A	Fragment		Not Collected
Area B1						
B4	**I**	Quartzite, Fire cracked rock	1	Fragment		
Area B2						

Prov.	Strat.	Artifact	Qty.	Part	Color	Notes
Surface Collection 5	**Surface**	Quartzite, Projectile point, Morrow Mountain Type II	1	Whole		66mm long, 28.2mm wide, 11.0mm thick, 15.4mm stem length, 13mm stem width.
Surface Collection 6	**Surface**	Quartz, Projectile point, Morrow Mountain Type II	1	Whole		38mm long, 22mm wide, 7.3mm thick
Area B2 / 44IW0366						
Surface Sample	**Surface**	Stoneware, Westerwald	1	Body	Purple	Incided decoration, unidentifiable
Surface Sample	Surface	Coarse Earthenware, Redware, brown lead glaze	1	Body		Unglazed exterior, posibly manganese mottled.
Surface Sample	Surface	Refined Earthenware, Staffordshire slip	1	Body		
Surface Sample	Surface	Stoneware, Gray Salt Glazed	1	Body		Unglazed interior, wheel thrown.
Surface Sample	Surface	Stoneware, Gray Salt Glazed	1	Body		Broken interrior missing.
Surface Sample	Surface	Stoneware, Gray Salt Glazed	2	Body		Albany slip or similar interior finish.
Surface Sample	Surface	Clay, Pipe Bowl	2	Fragment		One burned
Surface Sample	Surface	Tooth, Mammal	1	Fragment		
Area B2 / 44IW0369						
Surface Collection 1	**Surface**	Refined earthenware, Pearlware, shell edge with embossed edge	1	Rim	Green	
Surface Collection 1	Surface	Stoneware, Scratch blue	1	Body	Blue	Incised decoration, unidentifiable
Surface Collection 2	**Surface**	Glass, Milk glass lid liner	1	Fragment	White	
Area B2 / 44IW0371						
Surface Collection 3	**Surface**	Porcelain, Hard paste	1	Rim		No decoration

Prov.	Strat.	Artifact	Qty.	Part	Color	Notes
Surface Collection 3	Surface	Refined Earthenware, Unidentifiable, green glaze	1	Rim	Green	White detail along rim
Surface Collection 3	Surface	Glass, Lid or vessel	1	Fragment	Solarized	Large molded beads on one side. Possibly candy dish.
Area B2 / 44IW0373						
Surface Collection 4	**Surface**	Refined Earthenware, Tin glaze	1	Body	Blue, purple	Powdered with partial stencil decoration
Area B2 / 44IW0368						
Surface Collection 7	**Surface**	Jasper, Flake, tertiary	1	Flake		
Area E / 44IW0379						
Surface Collection 1	**Surface**	Stoneware, Brown salt glazed	1	Body	Brown	Wheel thrown
Surface Collection 2	**Surface**	Glass, Solarized stemware	1	Base		Fluted exterior
Surface Collection 3	**Surface**	Glass, Marble	1	Whole	Blue	15.5mm diameter, pitted exterior.
Surface Collection 4	**Surface**	Glass, Light green vessel	2	Fragment	Green	
Area F1						
B1	**I**	Glass, Bottle	1	Body	Brown	Likely beer bottle, molded.
B1	I	Iron, Nail, unidentifiable	2	Fragment		
B1.5	**I**	Glass, Bottle	1	Body	Light green	Likely Coca Cola bottle
B1.5	I	Glass, Vessel	1	Body	Light blue	
C1.5	**I**	Brick, Fragment	N/A	Fragment		Not Collected
C2	**I**	Brick, Fragment	N/A	Fragment		Not Collected
C3	**I**	Glass, Pharmeceutical bottle	1	Base	Aqua	Embossed "N5"
C3	I	Glass, Fragment	2	Fragment	Colorless	
D1.5	**I**	Brick, Fragment	N/A	Fragment		Not Collected
D2	**I**	Brick, Fragment	1	Fragment		
D3	**I**	Glass, Vessel	1	Body	Colorless	

Prov.	Strat.	Artifact	Qty.	Part	Color	Notes
D3	I	Glass, Vessel	1	Body	Light green	Soft drink or beer bottle
D3	I	Synthetic, Shooting disc	1	Fragment	Black	
D3.5	**I**	Glass, Vessel	1	Base	Colorless	Embossed "...-9" and "…-1673"
D3.5	I	Iron, Nail, unidentifiable	1	Fragment		
D3.5	I	Brick, Fragment	1	Fragment		
D4.5	**I**	Glass, Vessel	1	Body	Light green	

APPENDIX C: VCRIS FORMS

Forms to be added in final

REPORT >

Phase I Architectural Resource Survey of the Carver Solar Project Area

LOCATION > Isle of Wight County, Virginia

DATE > May 2022

PREPARED FOR >
Carver Solar I, LLC



PREPARED BY >
Dutton + Associates, LLC

VDHR FILE NO. >
2022-3225

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

PHASE I ARCHITECTURAL RESOURCE SURVEY OF THE CARVER SOLAR PROJECT AREA ISLE OF WIGHT COUNTY, VIRGINIA

PREPARED FOR:
CARVER SOLAR I, LLC

***PREPARED BY*:**
DUTTON + ASSOCIATES, LLC
1115 CROWDER DRIVE
MIDLOTHIAN, VIRGINIA 23113
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PRINCIPAL INVESTIGATOR/
SENIOR ARCHITECTURAL HISTORIAN
ROBERT J. TAYLOR, JR., M.A.

RESEARCH HISTORIAN
DARA FRIEDBERG, M.S.

APRIL 2022

ABSTRACT

In April 2022, Dutton +Associates, LLC (D+A) completed a Phase I architectural resource survey (Phase I) of the Carver Solar Project Area in Isle of Wight County, Virginia. The effort was intended to provide documentation and assessment of architectural resources within the project area to make recommendations as to whether they may be potentially eligible for listing in the National Register of Historic Places (NRHP) and assess those that are considered NRHP-eligible for project impacts. The effort was conducted in support of an application to Isle of Wight County for a Conditional Use Permit (CUP) and application to the Department of Environmental Quality (DEQ) for a Permit By Rule (PBR). Although the project will require archaeological investigations as well, that study will be conducted as part of a separate effort and reported in a separate document.

The project involves the development of a solar energy production facility in the Windsor vicinity of southeastern Isle of Wight County. The project area is spread across several tracts of land to the west of Windsor along U.S. 460, bound generally by Yellow Hammer Road to the west, Deerfield Drive to the north, Antioch Road to the east, and Blackwater Road to the south. The project tracts are currently a mix of agricultural field and woodland (both native and planted timber). Several have homes and/or agricultural complexes that will be excluded from the proposed development. As part of the project, a series of solar arrays will be built throughout the project area and will tie into the power grid through connection to an existing transmission line on the east side of Antioch Road.

The architectural resources survey for the Carver Solar project resulted in the identification of a total of eighty-two (82) architectural resources greater than 50 years of age (constructed in 1972 or earlier) located within the survey area. Of the surveyed resources, fifty-four (54) were previously recorded (VDHR# 046-0034, 046-5057, 046-5086, 046-5088, 046-5089, 046-5099/5105, 046-5107/5111, 046-5113, 046-5114, 046-5277, 046-5293, 046-5294, 046-5307, 046-5501, and 091-5098) and twenty-eight (28) were newly recorded during this Phase I Survey (VDHR# 046-5664, 046-5668/5694). Twenty-nine (29) of the previously recorded resources were evaluated and determined not eligible for listing in the NRHP by the SHPO in 2020 and were therefore not subject to resurvey or evaluation as part of this effort (VDHR# 046-0116/0121, 046-0132, 046-5026/5029, 046-5055, 046-5056, 046-5087, 046-5112, 046-5154, 046-5295, 046-5296, 046-5298, 046-5569/5574/5577). An additional two (2) of the previously recorded resources (VDHR# 046-0034 and 046-5057) were revealed to have been demolished. The resources surveyed as part of this effort primarily include domestic and agricultural buildings from the mid-nineteenth to late-twentieth century, as well as a nineteenth century family cemetery, a railroad corridor, and several twentieth century commercial buildings.

A total of four resources identified within the survey area are considered eligible or potentially eligible for listing in the NRHP including two homes, a commercial building, and a railroad corridor. Of the two homes, the farm at 23255 Barrett Town Road (VDHR# 046-5089) has previously been determined potentially eligible as a good example of a mid-nineteenth century plantation home in the area with a relatively intact property and several potentially nineteenth century outbuildings. The second home, a farm located at 7431 Deerfield Drive (VDHR# 046-5671) is believed to have been built circa 1894, but replaced an eighteenth-century dwelling, and retains several nineteenth century outbuildings as well as family cemetery. The commercial

building is the 1930s roadside "Hobb's Store" (VDHR# 046-5101) that has been determined eligible for its association to the development of U.S. 460 and a unique example of a service station with a complex of motor lodge cabins. The Norfolk and Western Railroad (VDHR# 091-5098) has also been determined potentially eligible for its association to the growth and development of commerce in the region from the nineteenth century through the present-day.

Each of the four NRHP-eligible resources within the survey area were subject to an assessment of impacts according to VDHR's impact characterization scale. Two of the resources are located on tracts included in the project, but the building complexes themselves are outside of the project area (Farm at 23255 Barrett Town Road – VDHR# 046-5089 and Hobb's Store – VDHR# 046-5101). As such, solar arrays, infrastructure, and other improvements will be made within and around the boundaries of these two properties. The buildings themselves and adjacent yardscapes will be excluded from the development footprint and access will be maintained with existing driveways. The avoidance areas will extend from the buildings to the road and will tie into setback of project improvements from the roads to maintain visibility of the resources from public ROW. Existing vegetation in the vicinity of the building complexes will also be maintained and where no vegetation currently exists, a robust supplemental landscape buffer of evergreen trees will be planted to screen improvements from the roads and building complexes. As such, the project will result in direct impacts, as well as a change of setting and viewshed for both resources, however, with regards to the farm at 23255 Barrett Town Road, the impacts to the property will be more substantial as its associated property, field/woodland patterns, and landscape are contributing to its character as a farm and ***therefore it is D+A's opinion that the project will result in a moderate impact to the farm at 23255 Barrett Town Road (VDHR# 046-5089)****. With regards to the Hobb's Store, however, the impacts will not substantially compromise the qualities and characteristics that make it significant or eligible for listing in the NRHP. As a roadside commercial building and tourist motel, its architecture and connectivity to the highway are considered key contributing aspects of its setting and will be preserved, while the farm fields and woodland to the rear where improvements are to be located are not as character-defining.* ***Therefore, it is D+A's opinion that the project will have no more than a minimal impact to the Hobb's Store (VDHR# 046-5101).***

For the other two properties located within the survey area but not within the project area, analysis found that the Farm at 7431 Deerfield Drive is located just north of the project area. Although the property parcel on which it is set immediately abuts the edge of the project area, the home and associated building complex are set centrally within the large property and a greater distance from the project. Existing vegetation on the property, including a thick timber stand, as well as a native wooded area bordering the swamp that extends along the perimeter of the property completely screens the project area from view and is anticipated to inhibit visibility of any project improvements. The Norfolk and Western Railroad corridor extends through the project tracts, although does not directly cross any of them. This corridor is lined by treelines and wooded areas for much of its length through the vicinity which buffer it from the project area. Inspection from the three road crossings in the vicinity reveal that in general this vegetation and other development bordering the roads and corridor screen wide views of the project area and will minimize visibility of project improvements. Therefore the project may introduce a slight change in the setting and viewshed of the landscape within and immediately surrounding the portion of the corridor in the vicinity of the project, although the project is not anticipated to alter the overall alignment of the existing corridor, nor introduce any features that are substantially different or incompatible from its constantly evolving setting. ***Therefore, it is D+A's opinion that the project will result in no***

more than a minimal impact to these resources. *Below is a summary of NRHP-eligible resources and recommendations of impacts.*

NRHP-eligible architectural resources with recommendations of project impacts

VDHR #	*Resource Name/Address*	*Year Built*	*NRHP Eligibility*	*Project Impacts*
046-5089	*Farm, 23255 Barrett Town Road*	*c.1850*	*Potentially NRHP-Eligible*	*Moderate Impact*
046-5101	*Hobb's Store, 6635 Windsor Boulevard*	*c.1933*	*NRHP-Eligible*	*Minimal Impact*
046-5671	*Farm, 7431 Deerfield Drive*	*c.1894*	*Potentially NRHP-Eligible*	*Minimal Impact*
091-5098	*Norfolk and Western Railroad*	*c.1858*	*NRHP-Eligible*	*Minimal Impact*

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1. INTRODUCTION

In April 2022, Dutton +Associates, LLC (D+A) completed a Phase I architectural resource survey (Phase I) of the Carver Solar Project Area in Isle of Wight County, Virginia. The effort was intended to provide documentation and assessment of architectural resources within the project area to make recommendations as to whether they may be potentially eligible for listing in the National Register of Historic Places (NRHP) and assess those that are considered NRHP-eligible for project impacts. The effort was conducted in support of an application to Isle of Wight County for a Conditional Use Permit (CUP) and application to the Department of Environmental Quality (DEQ) for a Permit By Rule (PBR). Although the project will require archaeological investigations as well, that study will be conducted as part of a separate effort and reported in a separate document.

All research, fieldwork, and recording conducted as part of these investigations conforms to the guidance specified in the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (Federal Register 48:44716-44742, September 29, 1983), the Virginia Department of Historic Resources' (VDHR) *Guidelines for Conducting Historic Resources Survey in Virginia* (rev. 2017) and the Virginia Department of Environmental Quality's (DEQ) *Solar Permit by Rule Guidance* (2012) for complying with the provisions of §10.1-1197.6 B 7 of the *Code of Virginia*. Principal investigators meet the Secretary of the Interior's Professional Qualification Standards (48 FR 44716) for archaeology, history, architecture, architectural history, or historic architecture. Robert J. Taylor, Jr., M.A., served as the Principal Investigator, oversaw architectural resource investigations, and authored the report. Research Historian Dara Friedberg M.S. conducted background research and prepared the historic context. Copies of all field notes, maps, correspondence, and research materials are on file at D+A's office in Midlothian, Virginia.

PROJECT DESCRIPTION

The project involves the development of a solar energy production facility in the Windsor vicinity of southeastern Isle of Wight County. The project area includes several tracts of land to the west of Windsor along U.S. 460, bound generally by Yellow Hammer Road to the west, Deerfield Drive to the north, Antioch Road to the east, and Blackwater Road to the south. The project tracts are currently a mix of agricultural field and woodland (both native and planted timber). Several have homes and/or agricultural complexes that will be excluded from the proposed development (Figures 1-1 and 1-2).

As part of the project, a series of solar arrays will be built throughout the project area and will tie into the power grid through connection to an existing transmission line on the east side of Antioch Road.

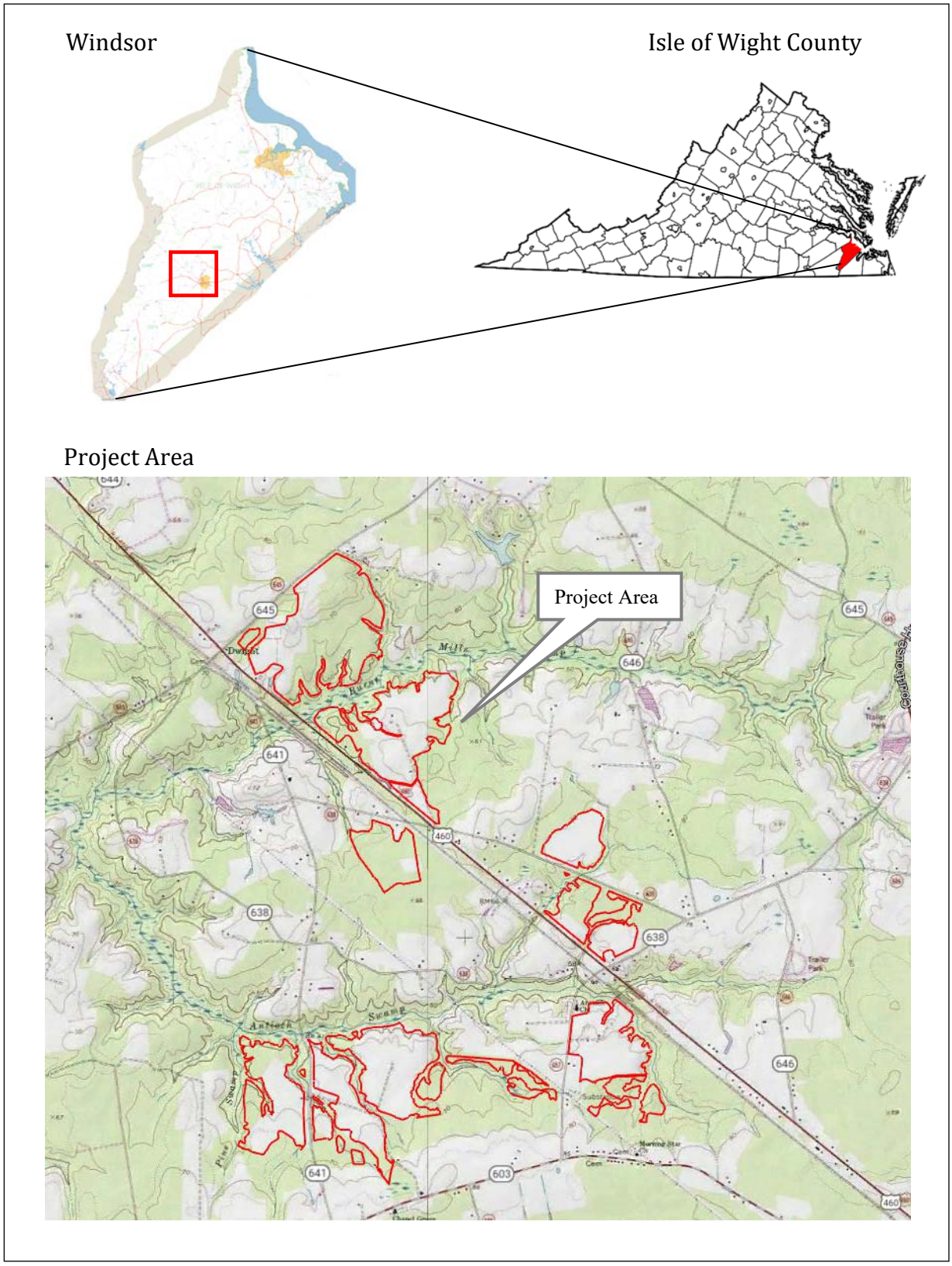


Figure 1-1: General location of the project area.



Figure 1-2: Aerial view of project area.

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2. SURVEY AREA

For the purposes of this project, the survey area was established to define the area in which the project may result in impacts to NRHP-eligible cultural resources. Impacts considered include "direct", in which project construction, components, or other aspects may physically alter a cultural resource. "Indirect" impacts are those which may introduce features, qualities, or other characteristics into the setting of a cultural resource. In the case of solar projects, direct impacts are typically introduced by the location of proposed arrays, access roads, fence lines, and utility easements. Indirect impacts are typically limited to the introduction of visual features.

As such, the architectural survey area for this effort includes the project area property, as well as the geographic area around the project within which the associated project components may be seen. The default viewshed survey area for solar project according to the VDHR and SCC for Solar Energy Projects is one-half mile, unless topography, vegetation, or other aspects of the landscape warrant a more refined distance. In the case of the Carver Solar Project, the default one-half mile buffer was deemed appropriate and utilized for the architectural survey. A map of the defined survey area is illustrated in Figure 2-1.

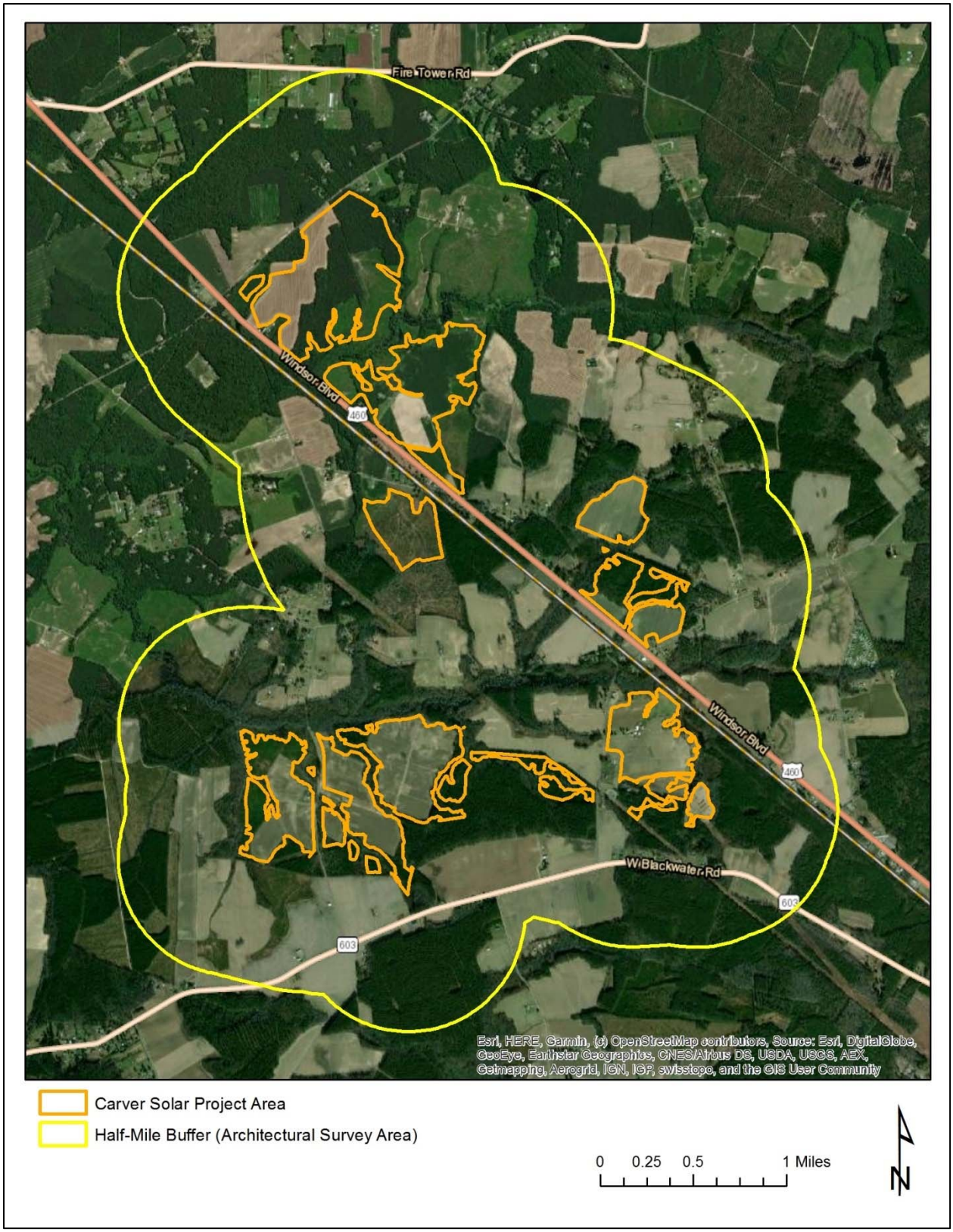


Figure 2-1: Carver Solar Project Area with half-mile architectural survey area.

3. RESEARCH DESIGN

The Phase I architectural resource survey of the Carver Solar Project was undertaken in order to confirm the existing conditions of known cultural activity and resources within the project area, identify new or unrecorded architectural resources within the survey area, evaluate those resources for NRHP eligibility, and assess potential project impacts to NRHP-eligible resources. The Phase I survey methodology is summarized below.

ARCHIVAL RESEARCH

In May 2021, D+A conducted background research as part of the *Phase IA Cultural Resources Assessment of the ±379.3-Hectare (±937.3-Acre) Carver Solar Project Area* with the goal of identifying all previously recorded historic properties located within one-mile of the project area. In accordance with VDHR's guidance document titled *Guidelines for Conducting Cultural Resources Survey in Virginia* (Revised 2017), the archives search was verified and updated at the time of this Phase I survey. Background research was conducted at the VDHR and on the internet and including the following sources:

- VDHR V-CRIS site files; and
- National Park Service, American Battlefield Protection Program, maps and related documentation.

In further preparation for the Phase I survey, D+A conducted additional review of the following documents and sources for information relative to unrecorded historic property locations in the project area:

- County Tax Assessors records;
- USDA Historic Aerial Imagery;
- U.S. Geological Survey Topographic Maps;
- Previous historic resource survey documents; and
- Local historical society archives.

The additional review conducted in support of the Phase I survey was designed to identify all properties greater than 50 years of age located within the survey area. Historic properties include architectural resources, historic and cultural landscapes, battlefields, and historic districts.

CONTEXT DEVELOPMENT

Information from the literature review and background search was used in conjunction with additional research to develop a cultural and historical context to place the project area and any identified historic resources within their appropriate context for evaluations of historical significance. This context was developed through review of previous cultural resource studies, published and unpublished manuscripts, historic maps, aerial photographs, local histories, and a variety of internet sources.

For the purposes of this effort, a comprehensive cultural context of Isle of Wight County was prepared summarizing general historical trends, settlement patterns, and development with a focus on the vicinity of the project area. Further analysis and context development were undertaken for the defined survey area so that newly recorded resources could be effectively evaluated.

FIELD SURVEY

The background research conducted in support of the Phase I reconnaissance survey was designed to identify properties greater than 50 years of age located within the survey area. A reconnaissance field survey was undertaken to identify and document all buildings, objects, structures, sites, and districts within the survey area that were constructed in 1972 or earlier and meet (or will soon) the 50-year threshold for NRHP-consideration. Construction dates for resources were established through a combination of archival research, property records search, map analysis, and field inspection.

For each surveyed resource, field forms were completed with information from site observations including a physical description of the resource with information such as relationship to adjacent buildings and structures, general condition, surrounding setting, description of exterior materials, identifiable architectural or structural treatments, and retention of historic physical integrity. Site plans depicting the built environment around each property were sketched. Each identified resource was then marked on both USGS 7.5-Minute Quadrangle maps and current aerial photographs. Representative digital photographs were taken to document each property's existing conditions, setting, and secondary resources.

All field survey identification and documentation were conducted from public ROW and included exterior features only. No interior inspections were conducted as part of this effort. In cases where a resource was not visible or accessible from the public ROW, the property was noted as such. All field documentation was organized and labeled with a unique identification number. Previously recorded resources subject to survey were numbered using their existing VDHR ID# while newly recorded resources were assigned a field recorder number.

All buildings and structures surveyed as part of this study were documented in accordance with VDHR's standards and guidelines and evaluated to determine potential significance in accordance with NRHP criteria. Concentrations of historic resources within or adjacent to the survey area were assessed in terms of their potential for inclusion in historic districts. Each resource's present condition, location relative to other resources, and distinguishing neighborhood characteristics were noted and photographed for an accurate assessment of NRHP Historic District eligibility.

Assessment of Project Impacts

Following identification and field inspection of historic properties, D+A assessed each resource for potential impacts brought about by the proposed project. Assessment of impacts was conducted through a combination of field inspection, digital photography, and review of topography and aerial photography. When assessing impacts, D+A considered those qualities and characteristics that qualify the property for listing in the NRHP and whether the project had the potential to alter or diminish the integrity of the property and its associated significance. Specific attention was given to determining whether or not the proposed project would introduce new visual elements into a property's setting or viewshed, which would either directly or indirectly alter those qualities

or characteristics that qualify the historic property for listing in the NRHP. Identified impacts were assessed according to DHR's *Guidelines for Assessing Impacts of. Proposed Electric Transmission Lines and Associated Facilities on Historic Resources in the Commonwealth of Virginia* and characterized as **severe** (fully visible and incompatible with character-defining viewshed or setting), **moderate** (partially visible and incompatible with character-defining viewshed or setting), **minimal** (partially visible, but screened by intervening vegetation and/or not out of character with existing viewscape) or **no impact** (not visible).

REPORT AND RECORD PREPARATION

Information from field survey was used in conjunction with background research and context development to assess each identified architectural resource for potential NRHP-eligibility. A results section was prepared that summarizes the field findings, assessment of significance and NRHP-eligibility. The results of the study are accompanied by maps and photographs as appropriate and were synthesized and summarized in this report along with the research design, archives search, and cultural contexts. All research material and documentation generated by this project are on file at D+A's office in Midlothian, Virginia. VDHR site forms (Virginia Cultural Resources Information System (V-CRIS) were completed for all cultural resources, 50 years of age or older, identified during the survey.

QUALIFICATIONS AND STANDARDS

The D+A personnel who directed and conducted this survey meet the professional qualification standards of the Department of the Interior (48 FR 44738-9). All work was conducted in accordance with the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (Federal Register 48:44716-44742, September 29, 1983), and VDHR's *Guidelines for Conducting Historic Resource Survey in Virginia* (rev. 2017).

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4. ARCHIVES SEARCH

This section includes a summary of all the cultural resource management events that have taken place within the project area registered at VDHR through March 2022. It also lists all previously identified architectural resources and archaeological sites located within the project area, as well as within one mile of the project area.

PREVIOUS SURVEYS RELEVANT TO THE SITE

Research at VDHR reveals that eight surveys have been conducted within one mile of the project area, six of which directly included portions of the project area (Figure 4-1; Table 4-1). These surveys were conducted between 1996 and 2020 and primarily included archaeological survey, however, some included architectural resources as well. The six surveys that included portions of the project area were conducted as part of transportation and utility projects, and therefore were primarily linear in nature, although a recent survey conducted as part of a nearby solar project included a larger architectural survey area that overlaps with portions of the project area.

Table 4-1: Previous Phase I archaeological surveys that cross into the project area. Orange highlight indicates survey included portions of the project area.

VDHR Report #	Title	Author	Year
PG-158	Results of the Archaeological Identification Survey of Approximately 3.18 Miles of the Proposed Route 460 PPTA Project in Isle of Wight and Southampton Counties and Supplemental Evaluation Testing at Site 44PG0504 in Prince George County, Virginia	Gray and Pape, Inc.	2009
SK-107	A Phase I Cultural Resources Survey of the Proposed Approximately 60-Mile Dominion Virginia Power Carson-Suffolk 500 kV Transmission Line in Dinwiddie, Prince George, Sussex, Southampton, and Isle of Wight Counties, and the City of Suffolk, Virginia	Cultural Resources, Inc.	2009
IW-022	Phase I Cultural Resources Survey of Proposed Improvements to Route 603, in Isle of Wight County, Virginia	Virginia Commonwealth University Archaeology Research Center	1996
IW-038	Archaeological Survey of Two Proposed Temporary Sediment Basins Associated With the Route 603 Widening Project	Virginia Department of Transportation (Highways and Transportation)	2004
IW-052	Final Letter Report: Results of the Archaeological Identification Survey of Approximately 6.06 Miles of the Proposed Route 460 PPTA Project, Isle of Wight and Southampton Counties, Virginia	Gray and Pape, Inc.	2008
SK-108	Additional Phase I Archaeological Survey Addendum to: A Phase I Cultural Resources Survey of the Proposed Approximately 60-Mile Dominion Virginia Power Carson-Suffolk 500 kV Transmission Line in Dinwiddie ... City of Suffolk, Virginia	Cultural Resources, Inc.	2009
SX-031	Archaeological Survey Route 460 Location Study, Sussex, Southampton, Isle of Wight Counties and City of Suffolk, Virginia	Gray and Pape, Inc.	2006

VDHR Report #	Title	Author	Year
IW-094	Phase I Cultural Resources Survey of the ±121.4-Hectare (±300-Acre) Windsor Solar Project Area, Isle of Wight County, Virginia	Dutton & Associates	2020

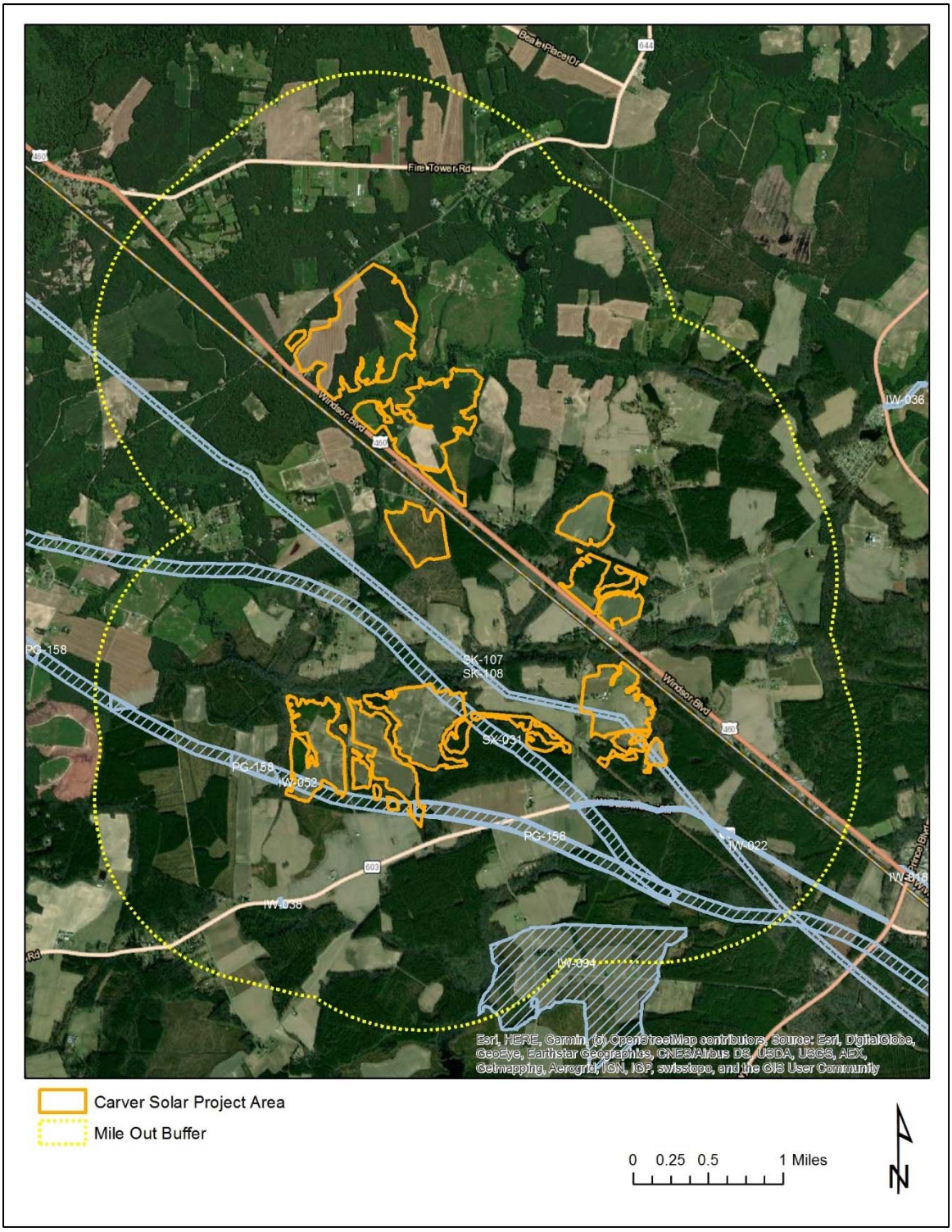


Figure 4-1: Previous surveys conducted within 1.0 mile of the project area. Source: V-CRIS

PREVIOUSLY IDENTIFIED ARCHITECTURAL RESOURCES WITHIN ONE MILE

Review of VDHR records identifies 73 previously recorded architectural resources located within one mile of the project area, seven of which are located directly within the project area (Table 4-2 and Figure 4-2). The resources consist of dwellings and farmsteads from the nineteenth and twentieth century, nineteenth and twentieth century churches, church and family cemeteries, twentieth century commercial buildings, a twentieth century granary complex, and a nineteenth century railroad corridor. Of these resources, three (3) have been determined eligible or potentially eligible for listing in the NRHP by the VDHR, including a mid-nineteenth century farmstead (VDHR# 046-5089), a late-nineteenth century railroad corridor (VDHR# 091-5098), and an early-twentieth century roadside store (VDHR# 046-5101). Of the other resources, sixty-four (64) have been determined not eligible for listing in the NRHP by the VDHR and the remaining six (6) have not been formally evaluated.

Table 4-2: Previously identified architectural resources located within 1.0 mile of the project area. Those resources in bold font have been determined eligible or potentially eligible for listing in the NRHP. Orange highlight indicates resource is located directly within the project area

VDHR#	Property Names	Evaluation Status
046-0034	Mumford House (Historic)	N/A
046-0036	Hearn House (Historic), House, 6122 Fire Tower Road (Function/Location)	DHR Staff: Not Eligible
046-0083	Carr House (Historic), Elem (Historic/Current)	N/A
046-0116	Farm, 8151 Blackwater Road (Function/Location), James R. Cobb Farm (Historic), Roberts Farm (Historic), Rocking Horse Stables (Historic)	DHR Staff: Not Eligible
046-0117	Heywood Bostic House (Current), House, 8299 Blackwater Road (Function/Location), William Bostic House (Historic)	DHR Staff: Not Eligible
046-0118	Bostic Family Cemetery (Historic/Current), Cemetery, Blackwater Road (Function/Location)	DHR Staff: Not Eligible
046-0119	Church, 8445 Blackwater Road (Function/Location), Morning Star Baptist Church (Historic/Current)	DHR Staff: Not Eligible
046-0120	Anthony G. Booker House (Current), House, 8503 Blackwater Road (Function/Location), Samuel Johnson House (Historic)	DHR Staff: Not Eligible
046-0121	House, 9177 Blackwater Road (Function/Location), Stokes Tenant House (Current)	DHR Staff: Not Eligible
046-0122	House, 9341 Blackwater Road (Function/Location), Wm. H. Goodman Estate House (Current)	DHR Staff: Not Eligible
046-0123	Robert Lee Gwaltney House (Current)	DHR Staff: Not Eligible
046-0124	House, 9341 Blackwater Road (Function/Location), Martha Council Estate Tenant House (Current)	DHR Staff: Not Eligible
046-0125	Mason Barn (Current)	DHR Staff: Not Eligible
046-0132	Cemetery, 8445 Blackwater Road (Function/Location), Morning Star Baptist Church Cemetery (Historic/Current)	DHR Staff: Not Eligible
046-5026	Austin Farm, 7095 W. Blackwater Rd (Historic/Location), House, 7095 West Blackwater Road (Function/Location)	DHR Staff: Not Eligible
046-5027	Austin Farm #2 (Current), House, 7289 West Blackwater Road (Function/Location)	DHR Staff: Not Eligible
046-5028	Chapel Grove Congregational Christian Church (Current Name), Chapel Grove United Church of Christ Cemetery (Current), Church, 7366 West Blackwater Road (Function/Location)	DHR Staff: Not Eligible
046-5029	Faulk House (Current), Gay School (Historic), House, 7443 West Blackwater Road (Function/Location)	DHR Staff: Not Eligible
046-5055	House, 7058 West Blackwater Road (Function/Location), Julia A. Butler House (Historic)	DHR Staff: Not Eligible

VDHR#	Property Names	Evaluation Status
046-5056	House, 6483 West Blackwater Road (Function/Location)	DHR Staff: Not Eligible
046-5057	Barn off Route 603 (Descriptive)	DHR Staff: Not Eligible
046-5074	House, 9430 Cut Thru Road (Function/Location)	DHR Staff: Not Eligible
046-5081	Britt Farm & Cemetery (Current Name), Farm, 22319 Thomas Woods Trail (Function/Location)	DHR Staff: Not Eligible
046-5086	Hedgepeth House (Current)	DHR Staff: Not Eligible
046-5087	Cobb House (Current), House, 7683 Mill Creek Drive (Function/Location)	DHR Staff: Not Eligible
046-5088	Council House (Current)	DHR Staff: Not Eligible
046-5089	**Farm, 23255 Barrett Town Road (Function/Location), Walters Hunt Club (Historic/Current)**	**DHR Staff: Potentially Eligible**
046-5098	William and Sarah Johnson House (Current), House, 6086 Fire Tower Road (Function/Location)	DHR Staff: Not Eligible
046-5099	Ralph and Nannie Leonard House (Current)	DHR Staff: Not Eligible
046-5100	Charles and Kimberly Daniels House (Current)	DHR Staff: Not Eligible
046-5101	**Hall Place (Historic), Helen Johnson Hobbs Store & Motel (Current), Hobbs Property, 6635 Windsor Boulevard (Rt.460) (Function/Location), Johnson Farm (Historic)**	**DHR Staff: Eligible**
046-5102	Dale and Helen Kelley House (Current)	DHR Staff: Not Eligible
046-5103	House , 7416 Windsor Boulevard (Current)	DHR Staff: Not Eligible
046-5104	Thomas and Clarence Lewis House 1 (Current)	DHR Staff: Not Eligible
046-5105	Abandoned Commercial Building, Windsor Blvd. (Current)	DHR Staff: Not Eligible
046-5106	Samuel and Susan New House (Current)	DHR Staff: Not Eligible
046-5107	Munford Family Cemetery (Current)	DHR Staff: Not Eligible
046-5108	Thomas and Clarence Lewis House 2 (Current)	DHR Staff: Not Eligible
046-5109	M. E. Hobbs House (Current)	DHR Staff: Not Eligible
046-5110	Carter Clements House (Current)	DHR Staff: Not Eligible
046-5111	Leland Duck House (Current)	DHR Staff: Not Eligible
046-5112	Clements Farm (Current), Farm, 23093 Antioch Road (Function/Location)	DHR Staff: Not Eligible
046-5113	Darrel and Dail Wigger House (Current)	DHR Staff: Not Eligible
046-5114	Cobbs House (Current)	DHR Staff: Not Eligible
046-5115	House, Windsor Boulevard (Current)	DHR Staff: Not Eligible
046-5116	Foster Freeman II House (Current)	DHR Staff: Not Eligible
046-5118	Farmhouse, 21323 Thomas Woods Trail (Function/Location)	DHR Staff: Not Eligible
046-5154	Antioch Independent Church (Historic/Current), Church, 23011 Antioch Road (Function/Location)	DHR Staff: Not Eligible
046-5277	House, 23258 Barrett Town Road (Function/Location)	DHR Staff: Not Eligible
046-5287	Farm, Thomas Woods Trail (Function/Location)	DHR Staff: Not Eligible
046-5293	House, 21512 Barrett Town Road (Function/Location)	DHR Staff: Not Eligible
046-5294	House, 7132 Ecella Road (Function/Location)	DHR Staff: Not Eligible
046-5295	House, 8021 Antioch Road (Function/Location)	DHR Staff: Not Eligible
046-5296	House, 23050 Antioch Road (Function/Location)	DHR Staff: Not Eligible
046-5298	House, 8464 West Blackwater Road (Function/Location)	DHR Staff: Not Eligible
046-5307	Commercial Granary, 22000 Barrett Town Road (Function/Location)	DHR Staff: Not Eligible
046-5501	House, 9108 Cut Thru Road (Function/Location)	DHR Staff: Not Eligible

VDHR#	Property Names	Evaluation Status
046-5569	House, 8430 Blackwater Road (Function/Location)	DHR Staff: Not Eligible
046-5570	House, 8412 Blackwater Road (Function/Location)	DHR Staff: Not Eligible
046-5571	House, 8404 Blackwater Road (Function/Location)	DHR Staff: Not Eligible
046-5572	House, 8394 Blackwater Road (Function/Location)	DHR Staff: Not Eligible
046-5573	House, 8384 Blackwater Road (Function/Location)	DHR Staff: Not Eligible
046-5574	House, 8376 Blackwater Road (Function/Location)	DHR Staff: Not Eligible
046-5575	Antioch Church Cemetery (Current Name), Cemetery, Antioch Road (Function/Location)	DHR Staff: Not Eligible
046-5576	House, 7076 Blackwater Road (Function/Location)	DHR Staff: Not Eligible
046-5577	House, 7524 Blackwater Road (Function/Location)	DHR Staff: Not Eligible
046-5578	Farm, 24345 Knoxville Road (Function/Location)	DHR Staff: Not Eligible
046-5585	Cemetery, Knoxville Road (Function/Location)	DHR Staff: Not Eligible
046-5598	Diggs Cemetery (Current). Cemetery, Yellow Hammer Road (Function/Location)	N/A
046-5631	Beaton Cemetery (Current Name), Cemetery, Mill Creek Road (Function/Location)	N/A
046-5632	Cemetery, Thomas Woods Trail (Function/Location), Stringfield Cemetery (Current Name)	N/A
046-5634	Cemetery, Knoxville Road (Function/Location), Roberts Cemetery (Current Name)	N/A
091-5098	**AM&O Railroad (Historic), Norfolk & Petersburg Railroad (Historic), Norfolk & Western Railway (Historic), Norfolk Southern Railway (Current)**	**DHR Staff: Eligible**

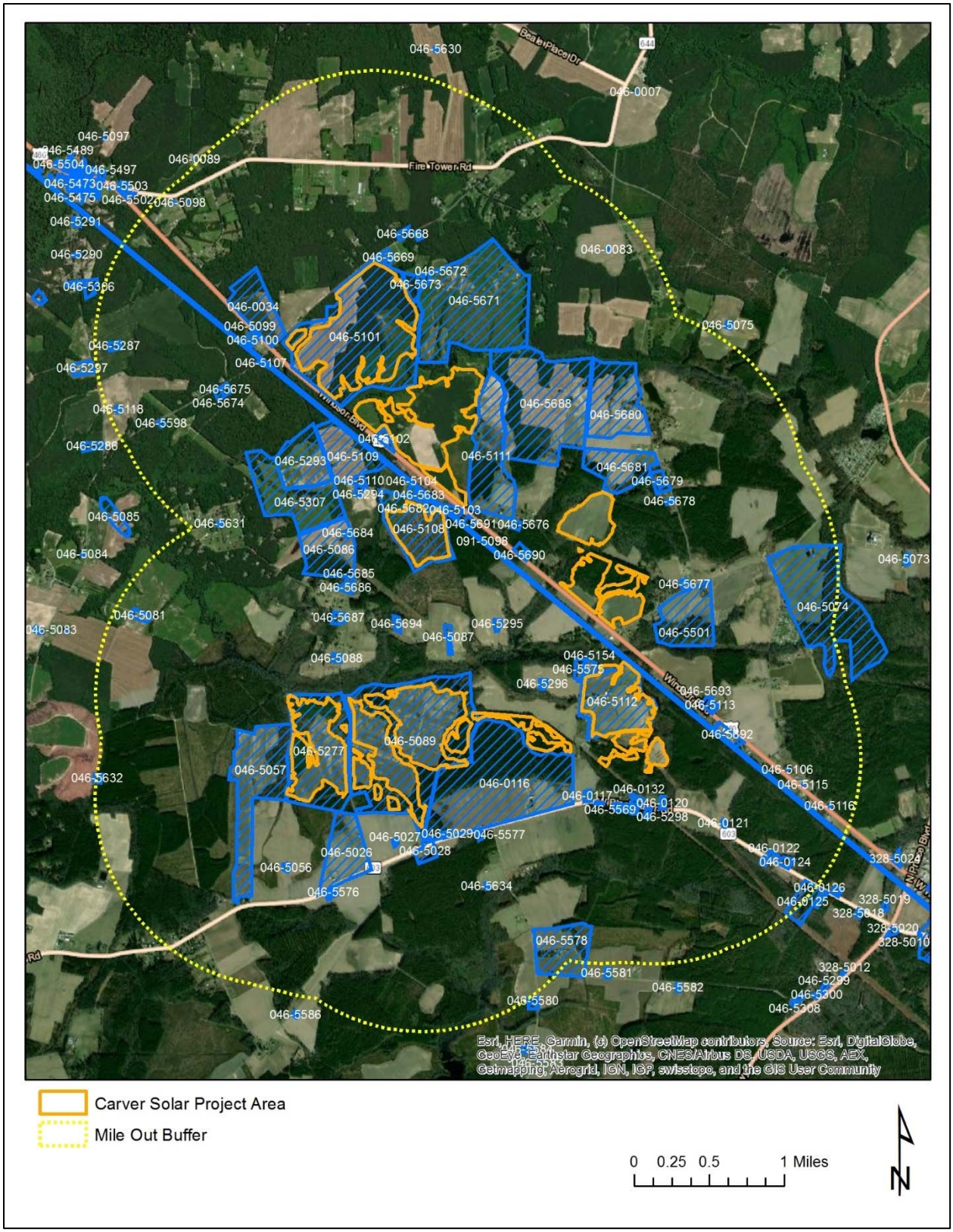


Figure 4-2: Map detailing all architectural resources within 1.0 mile of the project area. Source: V-CRIS

5. HISTORIC CONTEXT

The following section provides a brief summary of the general overarching regional historic themes relevant to Virginia and Isle of Wight County. The primary emphasis of this context focuses on the history, development, and occupation of the area, and describes how people throughout time could have left their mark on the landscape of the project area specifically. Historic occupation statistics and trends were analyzed, as were historic maps and available first-hand accounts which aided in establishing the appropriate historical context for the project area as defined by the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* and the Virginia Department of Historic Resources' *How to use Historic Contexts in Virginia: A Guide for Survey, Registration, Protection, and Treatment Projects* (VDHR 2017).

SETTLEMENT TO SOCIETY (1607 – 1750)

Upon the arrival of Europeans to Virginia, American Indian towns and villages lined the James River (Figure 5-1). The vicinity of present-day Isle of Wight County was occupied by the Warraskoyak living in the two major villages of Mathomank, near present-day Burwell's Bay, and Mokete, at Pagan Point. Though the tribes' primary villages were along the James River, they used interior lands up to at least 20 miles inland (King 1993:1). They lived under the wider rule of Wahunsunacock, commonly known to the English as Chief Powhatan.

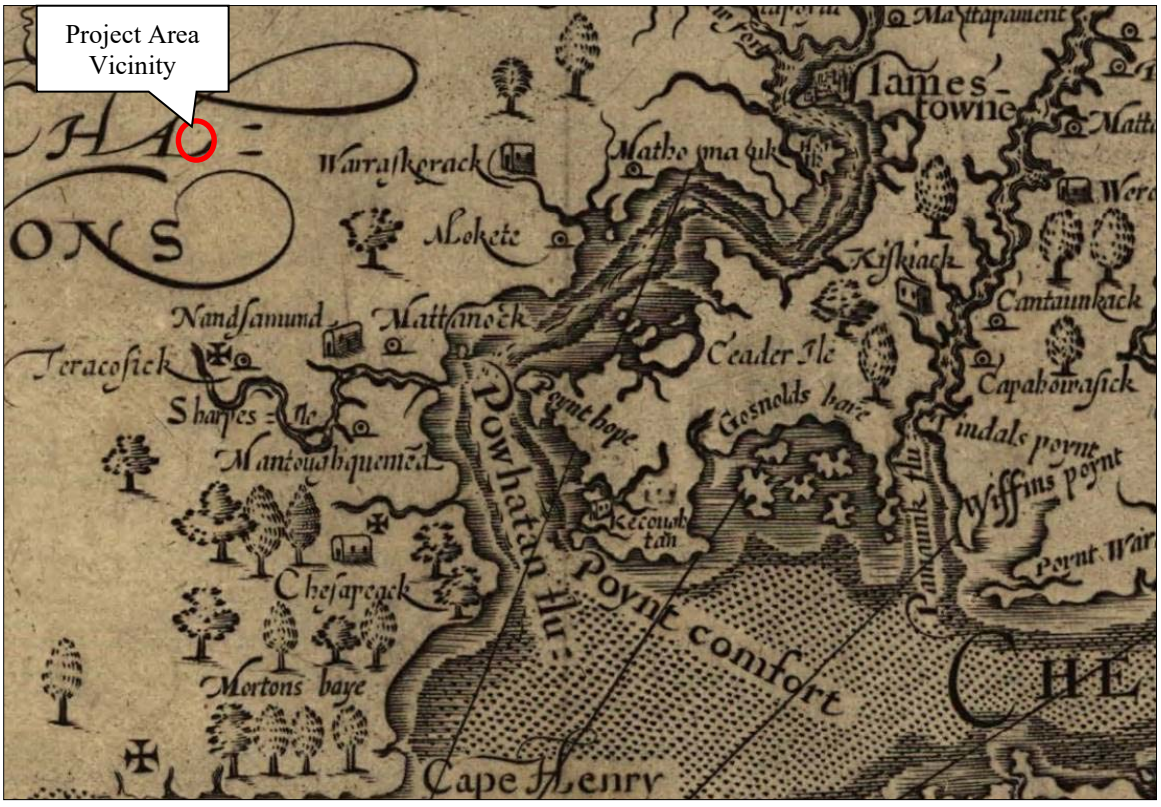


Figure 5-1: Detail of *Virginia*, by John Smith, depicting the general vicinity of the project area. Source: Library of Congress

On April 26, 1607, three ships commanded by Capt. Christopher Newport and sponsored by the proprietary London Company section of the Virginia Company made their first landfall in North America at Cape Henry, in the northeastern part of present-day Virginia Beach. The crew landed just temporarily and soon left the cape to seek a site further inland which would be more sheltered from ships of competing European countries. They sailed roughly 50 miles up the James River to where they established a fort at Jamestown in May 1607. Life at Jamestown was initially harsh, with the settlers suffering from starvation, disease, and attack by natives peoples.

In the spring of 1608, Capt. John Smith was driven by the necessity of finding food for the famished settlers. He crossed the James River into what is now Isle of Wight County and obtained bushels of corn from the Warraskoyak. While these American Indians initially acted kindly to the suffering settlers, years later they nearly killed every colonist on the south side of the James River (Morrison and Gwaltney 2006). The new settlers made some attempts to make use of the land to aid in their survival and in 1608 they began keeping hogs on Hog Island; a garrison was also placed on the island to warn Jamestown of approaching European enemies.

The Virginia Company's search for an income producing product in the colony came to fruition with John Rolfe's successful experimentation with tobacco in the early 1610s. The crop became the dominant crop of the colony and determined the pattern of nearly every aspect of life, encompassing the economy, the cultural landscape, and social relations (Kulikoff 1986; Moore 1976). Increased growth of the labor intensive crop also led to more land hungry planters and increased use of indentured servants followed by enslaved individuals.

Within a few decades, additional settlers arrived and conditions in Virginia became more favorable. Settlement spread out through the area with homes and plantations clustered along the banks of rivers and other navigable streams (Turner 1984:101-115). The first English settlement in the future Isle of Wight County was initiated by Capt. Christopher Lawne and Sir Richard Worsely in 1619. They settled on the south side of the James River at Lawne's Creek, now the dividing line of Isle of Wight and Surry counties. Initially known as Lawne's Plantation, the London Company changed the name of the area to Isle of Wight Plantation in 1625. Throughout the early 1620s, settlements ranged along the south side of the James River such as Warrsquoyacke (also known as Edward Bennett's Plantation) and Basse's Choice on the Pagan River (Morrison and Gwaltney 2006). While the south side of the James River was rich, the lands were fringed by swamps and the harbors were fewer and shallower making the area a bit less desirable (Rouse 1968:17). The project area would have remained the frontier.

The continued spreading of European settlement increasingly stressed relations between them and American Indians. Wahunsunacock died in 1619 and control over the chiefdom was passed to his brother Opechancanough who planned to eradicate the English from Virginia (Tyler 1990:13). The murder of the Nemattanew in early March 1622 provided pretext for a mass attack. On the morning of March 22, members of the Powhatan Confederacy and the Chickahominy Tribe killed English colonists along a 70-mile stretch on both sides of the James River. The result was a loss of more than a quarter of the total European population. By this time there had been 1,240 new residents of Virginia, so the massacre resulted in a loss of approximately 348 people; 53 of those killed lived in Isle of Wight County. Some English were saved through the actions of the Virginia Indian

Chanco who warned Richard Pace, a resident of Surry County (King 1993:4). For the next decade, Virginia was in a state of open warfare between the two entities.

Despite this setback, the colonists persevered and completed expeditions against the American Indians taking all land and resources they were able. English settlement continued to spread and some individuals were able to gain vast tracts of land, first along the major navigable waterways and then on the interior lands. In Virginia, the head right system was followed in the early distribution of land. During the first hundred years of settlement, a grant of fifty acres was given for the importation of every emigrant (Morrison and Gwaltney 2006). In this way, the size of land granted varied greatly. Using this system, many patents were distributed. The river front on the James was largely settled in the 1630s (Atkins 2008).

By 1634, the population of the Virginia Colony had grown to the point that King Charles I directed the formation of eight shires or counties. One of these counties was Warroaquyoake, now Isle of Wight. To the east was Nansemond County. The boundary between the two counties was disputed until 1674 when the Virginia House of Burgesses established "a southwest by south line be designed, runned and plainly marked from the river side of the plantation of Hayes, extending to the creek at or near the plantation called Nevill Oyster Bank; thence a line or lines up Col Pitt's creek to the head of his lands; thence in a southwest half a point westerly line" (quoted in Morrison and Gwaltney 2006). To the west was James City County, which spanned the James River. This became Surry County in 1652.

The region of the project area is also home to a change in drainage to the James River and to the Blackwater River. Waterways draining into the Blackwater River drained into the Albemarle Sound in North Carolina. The Sound, unlike the Chesapeake Bay, had no ports which placed a constraint on settlement and early planters trying to get products to markets. It is likely for this reason that the land was worth less than that closer to the James River. In the 1690s, the average land values were 51.1 pounds of tobacco per acre along the James and only 16.9 pounds around the Blackwater (Atkins 2008). Land was first settled along the James River and its tributaries after which colonists were forced to move farther inland (Figure 5-2).

The colony and county continued to grow in population. This growth saved the colony when Opechancanough planned a second uprising in 1644. Although more than 500 settlers lost their lives, by this time the colony was well established and the loss did not seriously threaten its survival (Whittenburg and Coski 1989:21). The resulting treaty, Treaty of 1646, saw the loss of Virginia Indian's land between the York and Blackwater rivers (Egloff and Woodward 2000:45).

Lands on the south side of the James River had ample forests. This would lead to a second good produced by the region: timber. Timber was exported as early as the European settling of the colony when Captain Newport took oak poles back to England for ships' masts in 1607 (Rouse 1968:33). This industry continues to the present day. The original use of Hog Island to keep hogs portended to another industry in the region: the raising of hogs. Many dwellings had large, deep, brick cellars which could be used for the storage of bacon and lard, among other things. As such, a trade in bacon began and continued to the present. Bacon was traded in the West Indies for sugar, coffee, and rum (Morrison and Gwaltney 2006).

The relative calm that had settled within the colony would soon be disrupted with Bacon's Rebellion in 1676. Nathaniel Bacon and his followers led a revolt against their perceived aggressors, American Indians, and the Governor of Virginia, Sir William Berkeley. A later owner of a portion of the project area would participate in the Rebellion. William West was "a rebel absconding, who took up arms against the Indians by whom his father had been most barbarously murdered" (Boddie 1938:162). Unrest would repeat in the region in the early eighteenth century. Slave insurrections were planned in 1709 and 1710 in Surry and Isle of Wight counties. In the 1709 plan, the foiled uprising involved both enslaved Africans and American Indians (Holloway n.d.).

However, despite unrest between European settlers and American Indians, land continued to be granted and the first grants in the general vicinity of the project area occurred in the late seventeenth century. It appears that the project area was part of land granted to several individuals. This includes Robert Ruffin and William Oldis with their 2,050 acres patented in 1669 and again in 1674; Col. Robert Pitt, Capt. Joseph Bridger, and William Burgh with their combined 3,000 acres of land patents in 1664; and George Peirce with his 2,500 acres patented in 1681 (Figure 5-3). Later, William West and Capt. Henry Applewhaite would purchase portions of these patents (*The Southern Roots* 2015).

The growth of population in the area is evidenced by the opening of an Episcopal church circa 1700. This early church, known as Isle of Wight Chapel, operated until the American Revolution and was eventually replaced by Antioch Congregational Christian Church (King 1993:317). With increased population throughout the region, new counties were established. Southampton County formed from Isle of Wight in 1749 with the Blackwater River serving as its boundary.

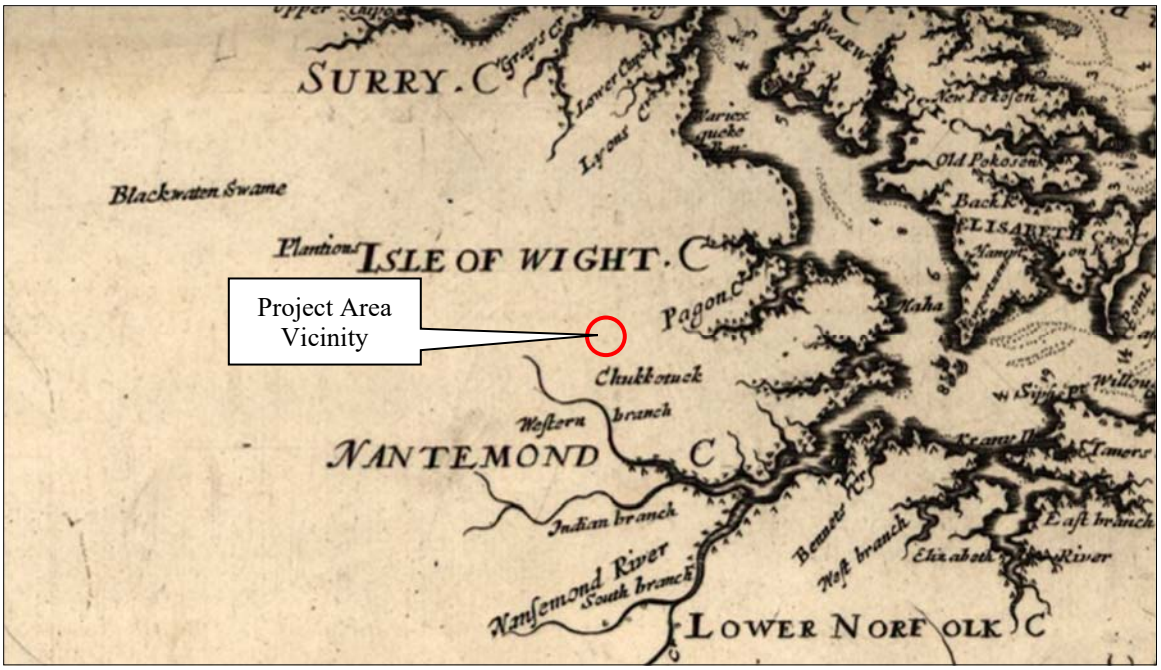


Figure 5-2: Detail of *Virginia and Maryland as it is planted and inhabited this present year 1670* depicting the vicinity of the project area. Source: Library of Congress

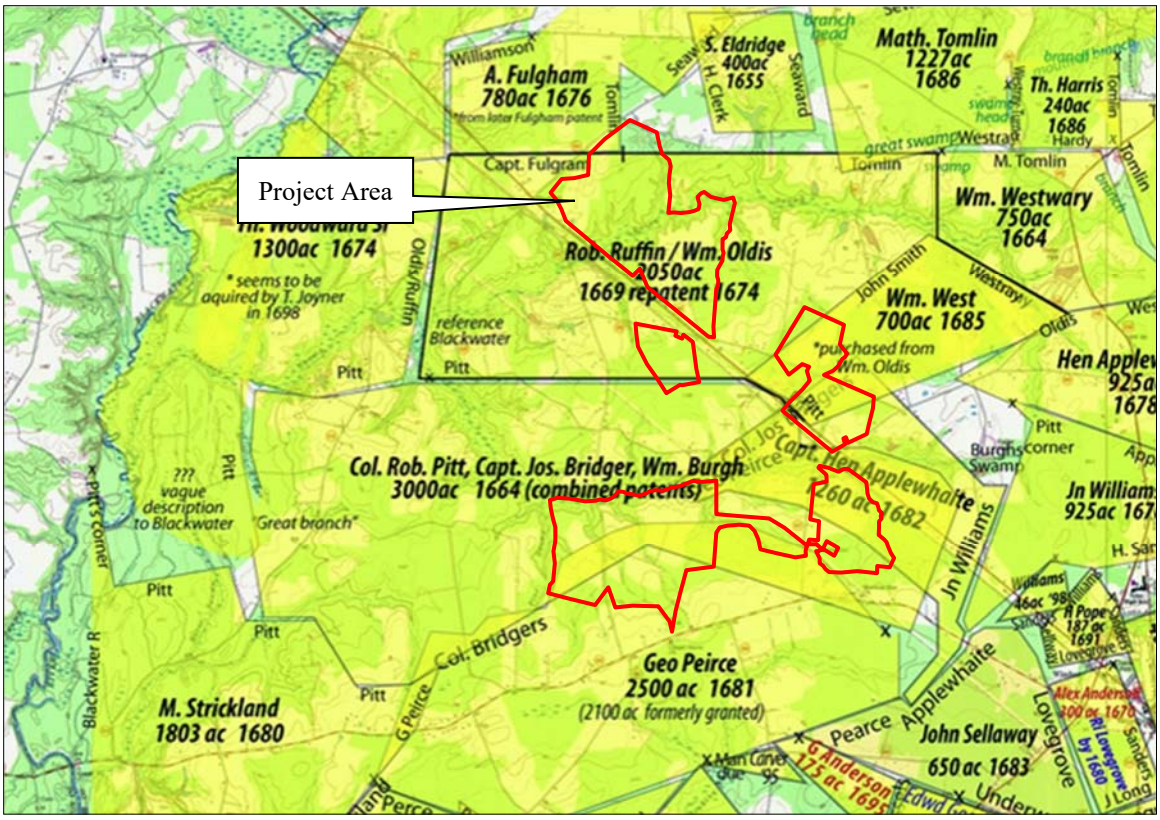


Figure 5-3: Map of early land grants in Isle of Wight County depicting the project area. Source: *The Southern Roots*

COLONY TO NATION (1750 – 1789)

By the mid-eighteenth century, the population continued to increase and colonists moved inland more. Smithfield, a settlement since circa 1740, officially became a town in 1752 and the main stage road from Norfolk to Richmond passed through it (Morrison and Gwaltney 2006).

The economy continued to grow as additional agricultural land was cleared and cultivated. Tobacco continued to be the principal crop during this period, however as the century entered the fourth quarter the tobacco economy began to falter. Severe soil depletion from continuous cultivation of tobacco, particularly in the sandy soils in the county that were not conducive for growing tobacco, coupled with the collapse of the European tobacco market precipitated a shift in the economy. Farmers began to focus more on corn, grains, and orchards for the production of liquors such as apple and peach brandy. The farms in Isle of Wight County were typically between 500 to 1,700 acres (David 2007:9). According to V-CRIS records, there was possibly an eighteenth century farm within the project area, however it now remains solely as an archaeological site (VDHR #44IW0248). Additionally, a Works Progress Administration survey of historic properties indicate that Hall Home was constructed circa 1786 within or near the project area. This records also makes note of an old burying ground that had no markers and was under cultivation at the time of the survey (Jordan 1937).

To get their goods to market, in addition to waterways there were two early major routes within the County. Courthouse Highway (Route 258) connected Smithfield to the south end of the County

along its approximate midpoint. The Old Stage Road (Route 10) connected Smithfield to Surry County (David 2007:9).

While the market for crops grown in Virginia and throughout America was in high demand in European markets, tensions between the colonies and England began to put a strain on trade. At the end of the Seven Years' War (or the French and Indian War in North America) in 1763, the British government had an immense amount of debt. To pay it, Parliament imposed heavy taxes on its subjects and tightened the administration of trade and navigation acts (Salmon 1983:22). These actions sparked a strong response from the colonies. In 1774, the Virginia Convention adopted resolves against the importation of British goods and the importation of slaves. It also required each county to form a volunteer company of cavalry or infantry to prepare for an armed conflict.

Once the American Revolution was underway, it did not impact Isle of Wight County as it did nearby port towns, like Norfolk and Portsmouth. In addition to the "725 men of military age" who joined the fight, residents of the county provided relief vessels and financed privateering vessels (King 1993: 64; David 2007:9). Additionally, the seventeenth century fort on Burwell Bay was fortified and renamed Fort Boykin (David 2007:9). The British passed through the county twice under British Cavalry Colonel Tarleton. He and his men made a raid on Smithfield with the intent to destroy the records; the records were previously removed. The British left a wake of destruction wherever they went (Morrison and Gwaltney 2006).

EARLY NATIONAL PERIOD (1789 – 1830)

Following American independence, Virginia entered a period of considerable change. The intensive tobacco cultivation previously pursued in the area had succeeded in severely depleting the area's soils of much-needed nutrients, making the crop unprofitable and leading farmers to explore other options. Over time, farmers in southeast Virginia turned to corn and grains, cotton, orchards, livestock, and finally peanuts and soybeans (King 1993:192).

In addition to diversification, a more scientific method of farming was adopted to help restore the soil's nutritive qualities. In his 1817 series of essays entitled *Arator*, Caroline County's John Taylor demonstrated the benefits of four-field crop rotation, in which soils could be improved significantly by rotating corn, wheat, fertilizer, and clover. Similarly, Edmund Ruffin, of Prince George, Hanover, and Amelia counties, experimented with crop rotation, fertilizers, and farm machinery. In the early 1820s, he publicized the effectiveness of marl in reducing soil acidity, a technique that could triple the productivity of Tidewater soils. Plantations began to be replaced by smaller-scale farmsteads that were increasingly situated along the system of interior roads in the county. These changes would strengthen central Virginia's economy (McCartney 2009). The value of farmland in the region increased dramatically in the early nineteenth century. In the Antebellum Period, these practices had become accepted and widely used and by 1860 Virginia was in the best condition agriculturally of her history according to historian Avery O. Craven (Agee 1969:3).

The almost exclusively agrarian society was beginning to accommodate urban centers and small hamlets, although farming continued to be the primary means of livelihood (Traceries 1993).

While the population remained relatively steady, there was a shift to the southern half of the county as people were enticed by the open lands and inland roadways.

At the first federal census in 1790, Isle of Wight County had 9,028 residents. During this period the population rose slightly to 10,517, approximately 42 percent of whom were enslaves. There was also a growing free black population in the county (USCB). Throughout the nation, "Black labor became the foundation stone not only of the Southern social structure, but of Northern manufacture and commerce, of the English factory system, of European commerce, of buying and selling on a worldwide scale" (DuBois 2007).

By 1818, there was a post office in the present-day town of Windsor, east of the project area. According to V-CRIS records, Clements Farm was constructed within a portion of the project area circa 1820 (VDHR #046-5112). Adjacent to the project area, Antioch Congregational Christian Church (VDHR #046-5154), on Antioch Road, opened in 1828. Antioch Church would be the mother church for multiple churches in the county (King 1993:317, 432). With this shifting population, the distance to the courthouse in Smithfield proved to be too great and the courthouse was moved to a more central location in 1800. The new town, Isle of Wight, was located along Courthouse Highway, approximately six miles northeast of the project area (Figure 5-4) (David 2007:9-10).

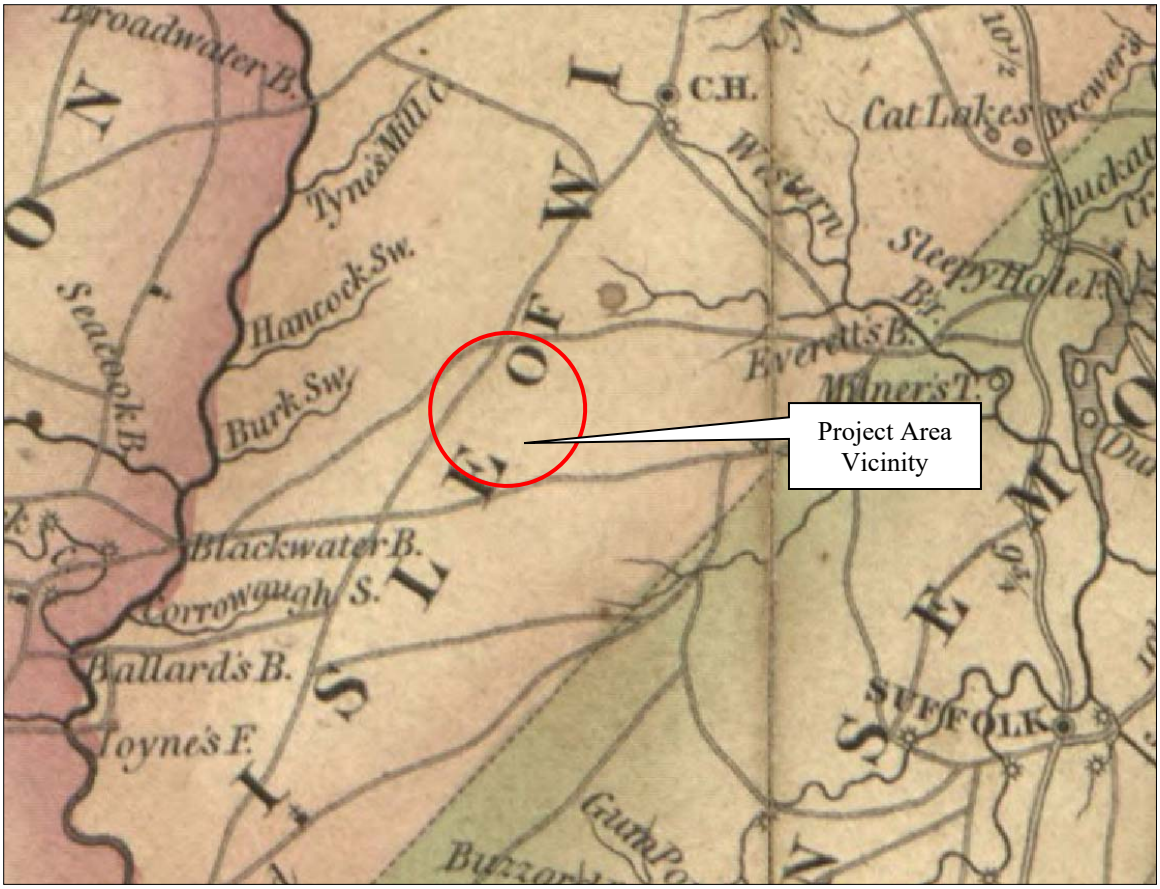


Figure 5-4: Detail of *A map of the state of Virginia*, 1827, depicting the vicinity of the project area. Source: Library of Congress

ANTEBELLUM PERIOD (1830 – 1860)

By the 1830s, a lasting migration from older settled regions of Virginia to lands opening in the west and an agricultural depression affected area's commerce and population. Between 1830 and 1850, the population of Isle of Wight County decreased 11 percent (USCB). Despite the drop in population, the enslaved and free black population remained about 50 percent of the total population. The high slave population led to unease and in 1831 there was an insurrection in nearby Southampton County known as Nat Turner's Rebellion. Troops from Isle of Wight, Nansemond, and Surry counties guarded the borders of the counties to prevent an escape of the insurgents to the Dismal Swamp (Drewry 1900:83). The insurrection prompted scared white citizens to strengthen rules regarding enslaved African Americans and free blacks (Atkins 2008).

Approximately 90 percent of the total population was involved in agriculture and identified as farmers (David 2007:10). The diversification of crops throughout the Commonwealth continued and by 1859 Virginia was producing only 28.4 percent of the nation's tobacco (Agee 1969:21). Crops that took its place of tobacco in southeast Virginia included cotton, corn, and peanuts. Grains and corn grown in the region were processed at mills. Before the Civil War, peanuts, also known as "goober peas" or "ground peas" were little known outside of the southern states (Morrison and Gwaltney 2006). Isle of Wight's first peanut export was in 1849; the county would eventually become the center of the peanut belt (David 2007:10). Additionally, the ham and bacon industry continued growing. Before the coming of the railroad, the bacon trade reached out 30 to 40 miles into surrounding counties and hogs were driven in by foot from as far away as Kentucky, Tennessee, and North Carolina (Morrison and Gwaltney 2006). The railroad would create a bigger market.

In 1833, the Portsmouth and Weldon Railroad was organized; it ran in the southern portion of the county. The Norfolk and Petersburg Railroad was chartered in 1851 and was completed in 1858. Land for this line was purchased in 1854. When it became apparent that a station would be erected in Corrowaugh, a couple of local residents purchased the surrounding land for the establishment of a town and Windsor became a railroad stop. With the railroad crops could be sent out to markets much quicker than by water and large quantities of lumber, bacon, and peanuts were sent to market (King 1993).

Forests in Isle of Wight County were rich with tall cedar, cypress, pine, oak, and other hardwoods. Lumbering prospered in the region and forests could be quickly cleared with products transferred to the large market in Norfolk. Homes were built, and families began to establish themselves in the growing community of Windsor (King 1993:122). The town of Zuni also grew around a passenger depot for the Norfolk and Western Railroad northwest of the project area (Monroe et al. 2005:48).

A Civil War era map depicts a project area that consisted of a mixture of forested land and cleared fields (Figure 5-5). The waterways of Burnt Mills Swamp and Antioch Swamp crossed or formed borders to the project area. Though early historical mapping can prove difficult in overlaying with modern maps due to artistic license and changes in road and waterway alignments, this 1864 map depicts buildings within and near the project area. Several homes were constructed during this period within and outside of the project area. This includes a dwelling at 23255 Barrett Town Road

(VDHR #046-5089) constructed circa 1850, which roughly corresponds with a building illustrated near the southern portion of the project area, and the James R. Cobb Farm (VDHR #046-0116) constructed circa 1830, which corresponds to the Roberts house near the southern portion of the project area. In the northern portion of the project area were two dwellings, one of which was identified as associated with the Stevens family. There is also a building within or near the center portion of the project area.

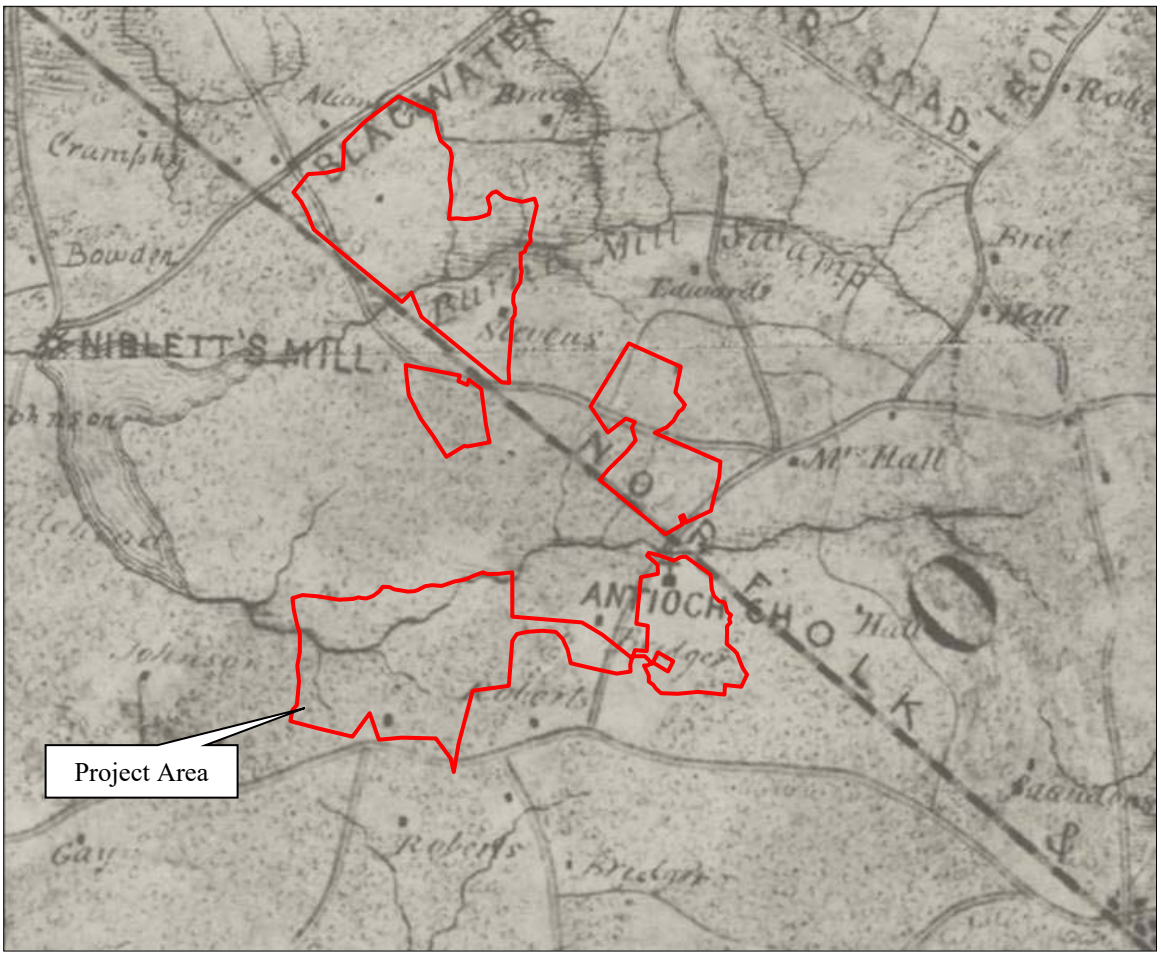


Figure 5-5: Detail of *Map of Isle of Wight and part of Nansemond*, 1864, depicting the project area. Source: Library of Congress

CIVIL WAR (1861 – 1865)

Prior to the Civil War, Isle of Wight County had the eighth largest number of free blacks of the 148 counties in the state of Virginia. It ranked 52nd among the number of slaves. When the vote for secession came to the county, it was unanimously approved (Morrison and Gwaltney 2006). On the shoreline of Isle of Wight County, two forts were constructed or reinstituted during the war, Fort Huger and Fort Boykin. Men of Isle of Wight County fought for the Confederacy and the Isle of Wight Grays formed under the command of Captain Watkins (King 1993:122).

No major battles took place in the county, although skirmishes did occur. As depicted on a 1906 map, there were a few skirmishes in the vicinity of the project area (Figure 5-6). In spring 1863,

the New York 99th Infantry took an active role in the defense of Suffolk and in May of that year there was a skirmish at Antioch Church (NYSDMNA n.d.). Throughout the war, Confederates defended the Blackwater River and there were two skirmishes at the bridge of Blackwater Road over the river in 1862 and 1863. In both cases, Federals drove Confederates away but did not destroy the bridge (VDHR 2000).

Additionally, Union forces occupied many areas of the state including in Isle of Wight County and, at times, Windsor:

> The Northern occupiers claimed this territory as their own, and so it was, in a strictly military sense: Union forces regularly patrolled it, could project their power at will anywhere within it, and were able to exclude Confederate power and authority from it (aside from the occasional Rebel cavalry). By that reckoning, the citizen there were – and they considered themselves to be – in enemy hands (quoted in Wills 2001:204).

According to one Union soldier "We've burned their fences, destroyed their railroad and thus lessened the value of their property" (quoted in Wills 2001:118). The time Federals spent in the area created a lasting impression on residents.

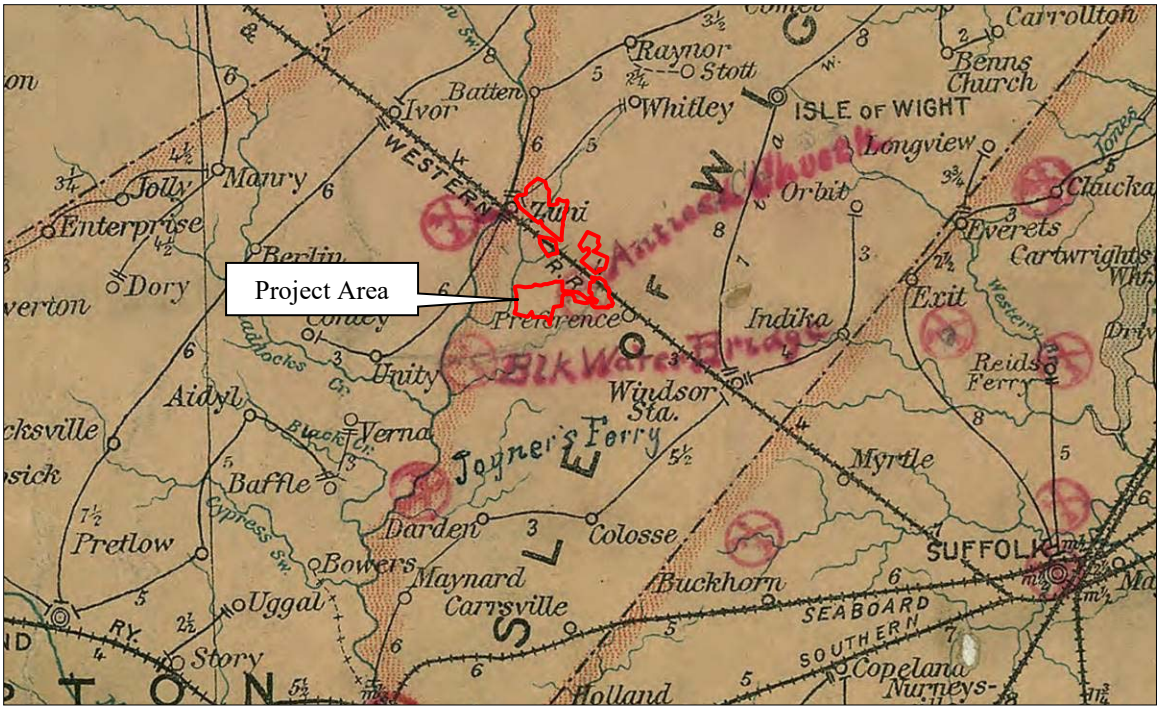


Figure 5-6: Detail of *Post route map of the states of Virginia and West Virginia.*, 1906, depicting the project area and the marked skirmishes. Source: Library of Congress

RECONSTRUCTION AND GROWTH (1865 – 1917)

The economy of Isle of Wight County, like the rest of Virginia, was devastated by the War Between the States. The land had been ransacked by occupying armies leaving farms and properties destroyed. There was an immense loss of draft animals and severe damage to farms,

mills, and manufacturing establishments. Mill-dams were cut, ponds drained, and railroad depots, bridges, and trestles burned. Farm animals in the track of armies had been seized or killed and other food products taken (Head 1908). Land was nearly worthless and many of the owners no longer had capital, farm animals, or farming tools. As white local farmers coped with labor shortages from the emancipation of their labor force and lack of funds to buy necessary materials, many fell into debt and were forced to forfeit their real and personal property or declare bankruptcy (McCartney 2009).

The biggest change in the south was the new freedom of thousands of enslaved persons. Many newly freed slaves stayed in the county as sharecroppers or tenant farmers and later as land owners. Sharecropping and tenancy became a way of life for much of rural Virginia. As these Americans began to put their lives back together, churches and schools began to be organized. South of the project area, local African Americans organized Morning Star Church in 1886 on land donated for this use (King 1993:320).

With its recovery, Virginia adopted a new constitution which provided for public schools. By 1871, Isle of Wight had 25 schools: 20 white and 5 "colored" (*The Teachers Guide* n.d.). Outside of the project area, the Faulk House, which had been constructed circa 1900 on Blackwater Road, became the Gay School and initially educated white children in the area. Sometime before 1940, this changed and the school was used for the education of African American children (V-CRIS #046-5029).

The longstanding agricultural economy of Tidewater Virginia began to recover. The production of peanuts increased, their cultivation improved, and, by the aid of special implements, their production was cheapened. The value of the crop was estimated to be not less than three million dollars for the nuts alone (Morrison and Gwaltney 2006). P.D. Gwaltney and Company was created in 1870 for the shipping of ham and peanuts. The company grew dramatically in the late nineteenth century and by 1898 it had become the largest peanut company in the world (David 2007:13). Added to this is the value of the peanut vines in serving as a forage crop for horses and cattle and nuts on the ground for hogs (Morrison and Gwaltney 2006).

In addition to peanuts, the county produced oats, potatoes, fruits, vegetables, and oysters (Morrison and Gwaltney 2006). Farmers were able to get goods to market on the newly repaired rail line. Following the war, the Norfolk and Petersburg Railroad was rebuilt and its stations repaired; the line was also extended west to the Mississippi Valley. The Atlantic, Mississippi and Ohio Railroad Company was formed from a merger between the Norfolk and Petersburg and other railroads in 1872. From this, the Norfolk and Western was organized in 1881 (Bamann and Hall 2006:3/14).

Timbering also prospered during this period with the creation of Camp Manufacturing Company at the south end of the County, opposite Franklin. Other lumber companies included Watkins Lumber Company, Cumberland Lumber Company, and Kirk Lumber Company (David 2007:13).

Finally, Smithfield's early trade in bacon and ham gave rise to attention in the feeding and slaughtering of hogs and curing of bacon. In the early twentieth century, Smithfield's shipment of cured hams was about 40,000 (Morrison and Gwaltney 2007). With these important industries, the

financial condition of Isle of Wight County improved at the closing of the nineteenth century and population between 1890 and 1900 increased 16 percent to 13,102 residents (USCB).

As the area recovered, by the turn of the century residents of Windsor felt that it should officially be a town. It was chartered in 1902 and Windsor Station became the Town of Windsor (History of Windsor n.d.) (Figure 5-7). With all of the early improvements made to the town, it was flourishing by 1907:

> It has a large, flourishing trade, many thousands bushels of peanuts and other farm products being annually shipped, and its people are well known for their hospitality.
>
> …It has four general stores, two groceries, two barber shops, one shoemaker, one millinery, three churches (Methodist, Baptist, and Christian), one high school, one peanut factory, one planning mill, two eating houses, one blacksmith shop, one bank, two telephone offices, one telegraph office (Western Union), two undertaking establishments, one livery stable, one furniture shop and one hotel.
>
> Its population is over four hundred and the value of its real and personal property is $800,000 and the aggregate amount of its annual business $250,000 (quoted in King 1993:126).

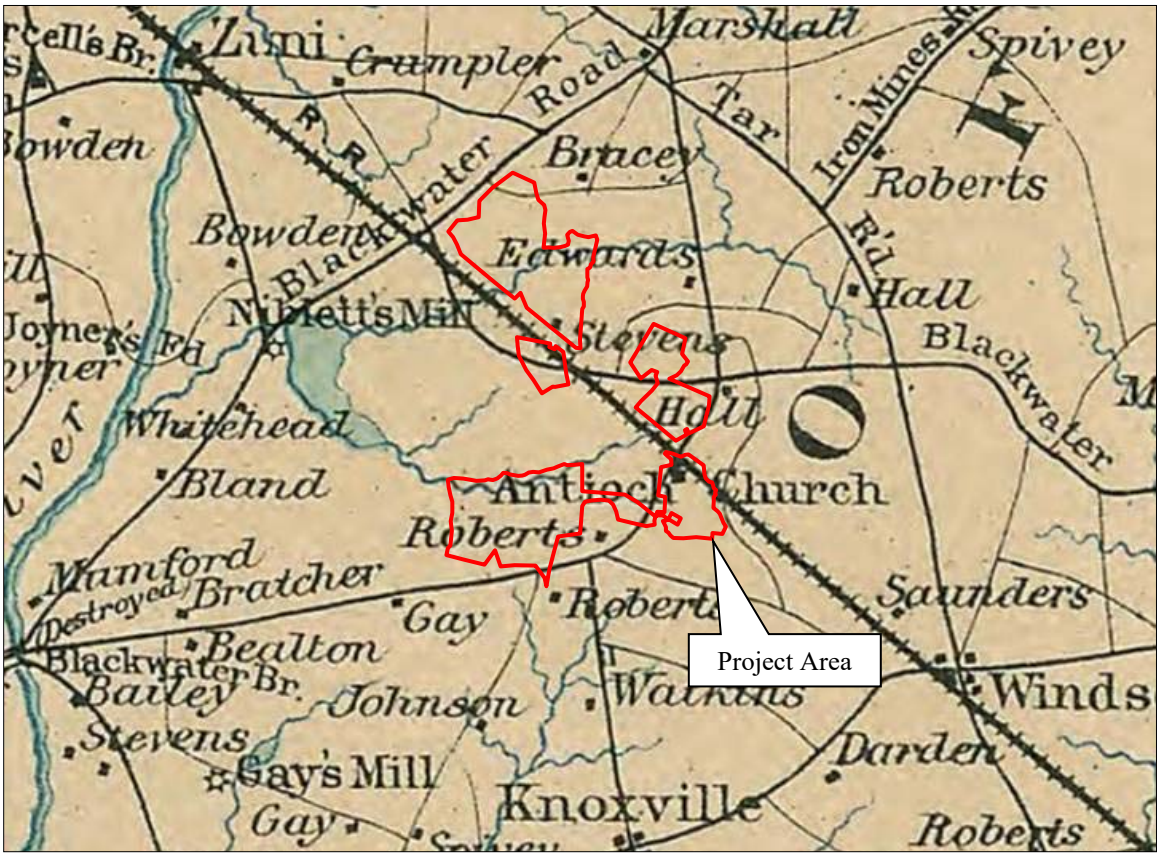


Figure 5-7: Detail of *Preliminary map of a part of the south side of James River, Va.,* 1891, depicting the project area. Source: Library of Congress

WORLD WAR I TO WORLD WAR II (1917 – 1945)

As the twentieth century continued, the number of farms in the Isle of Wight County steadily increased. The peanut industry took a downfall in 1921 when P.D. Gwaltney's factories were destroyed by fire. Although processing of the legume ended in Smithfield, neighboring Suffolk became a major peanut processing hub with the growth of Planters Peanuts (David 2007:18). With the loss of the peanut factories, in Isle of Wight County the primary industry transitioned to meat packing, most notably of ham (Morrison and Gwaltney 2007).

Additionally, during this time many farms were subdivided and new single family homes were constructed or new dwellings replaced older homes on farms (David 2007:18). As technological and transportation innovations were made, changes were brought to Windsor. Electricity came into the Town of Windsor in 1923 as did telephone service; a transmission line crosses the project area. The first gas station in Windsor was erected in 1924 (King 1993:127).

While the Great Depression affected urban areas by devastating businesses, the agricultural production of rural counties was not subjected to the same issues. The number of farms actually increased by six percent between 1930 and 1935. Agriculture remained the economic mainstay of Isle of Wight County and its commercial centers provided processing facilities for the products and access to export goods (David 2007:18).

A number of important transportation improvements happened during this period. In 1927, the James River Bridge was completed connecting Isle of Wight County with Newport News and Hampton. To ease travel as automobiles became more popular, roads were paved, beginning with Routes 665 and 667 in 1932 and 1933. The Commonwealth of Virginia would also build Highway 460, or Windsor Boulevard, which connects Suffolk, Windsor, and Petersburg (Monroe et al. 2005:51). At the new road, Lewis C. Johnson built a general store and three tourist cabins within the project area for travelers (V-CRIS #046-5101).

During World War II, with the proximity of Isle of Wight County to the military bases in southeast Virginia citizens were subjected to air raid warnings. An anti-aircraft gun site was set up at the northern end of King's Highway Bridge and the rail sidings near Windsor were used as a staging ground for munitions (Bradshaw n.d.; Monroe et al. 2005:51).

Topographic maps from this period illustrate the project area which remained a mix of forested land and fields that were crossed by minor drives (Figures 5-8 and 5-9). Buildings lined the major roadways in and out of the project area. During this period there were buildings in all sections of the project area. By 1945, a transmission line crossed the project area.

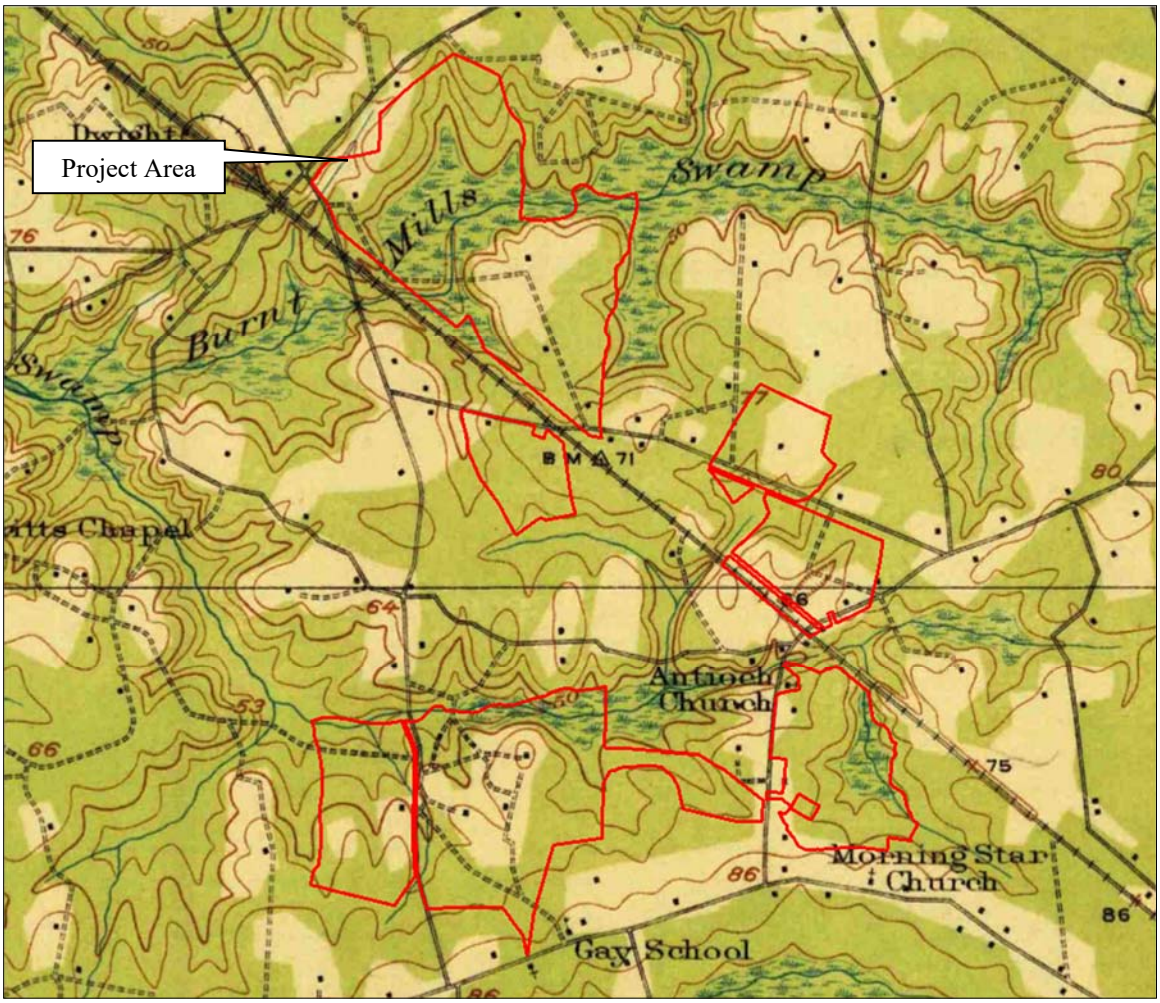


Figure 5-8: Detail of 1920 *Ivor Quadrangle*, depicting the project area. Source: USGS

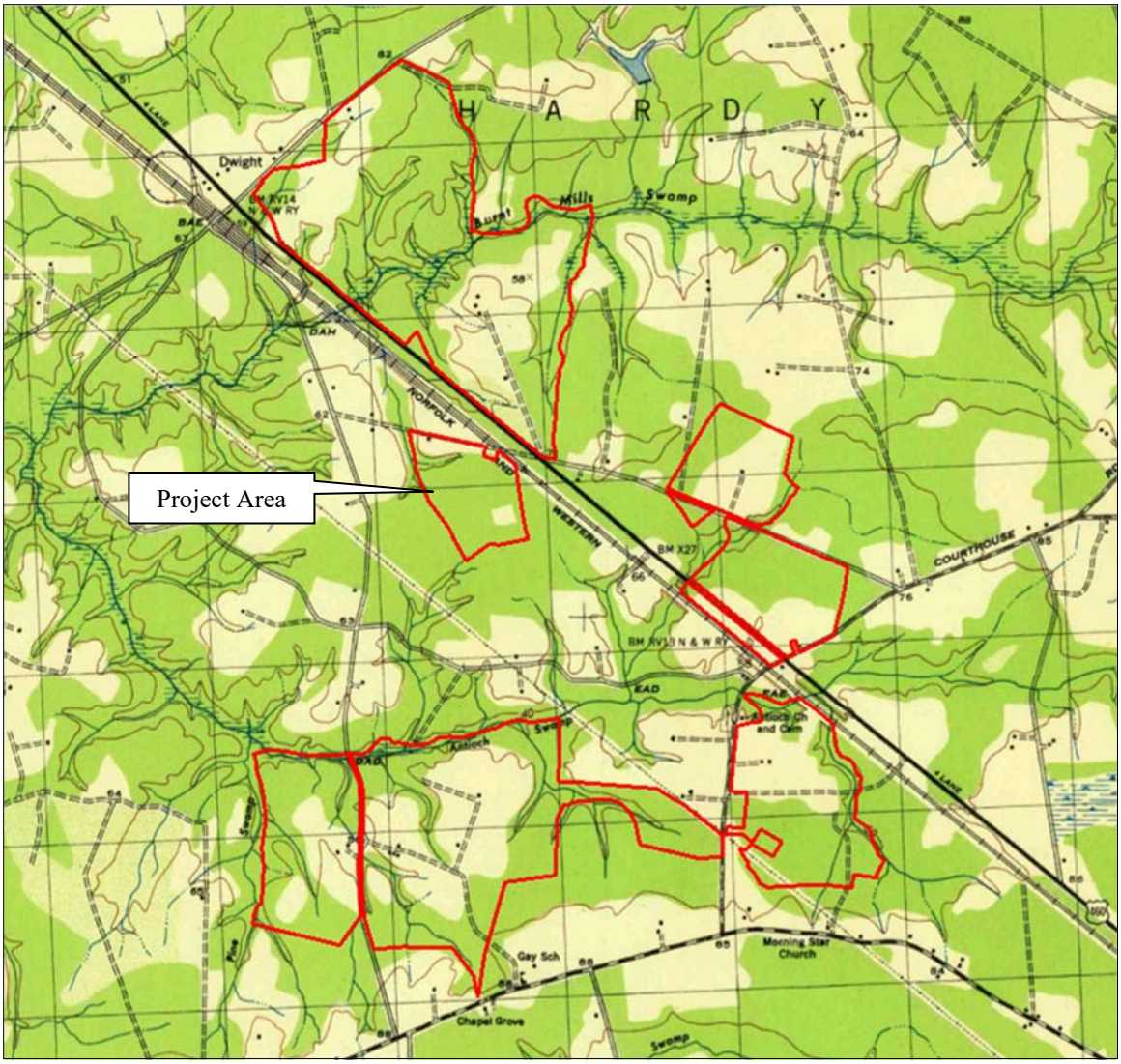


Figure 5-9: Detail of 1944 *Zuni Quadrangle*, depicting the project area. Source: USGS

NEW DOMINION (1945 – PRESENT)

The end of World War II brought with it a building boom that would begin to change the character of the earlier farmsteads within Isle of Wight County. Smithfield to the north became a bedroom community for the now burgeoning Newport News, Portsmouth, and Norfolk and developmental pressure was placed on farmsteads (David 2007:19). In the second half of the twentieth century, the Town of Windsor was improved and expanded as it annexed 2.82 square miles of surrounding land (History of Windsor n.d.). When schools around Windsor were consolidated, the Gay School was abandoned (Lowe 2003; V-CRIS #046-5029).

The face of agriculture also began to change. By the end of World War II, Virginia was no longer the leading producer of peanuts, a situation that would continue into the twenty-first century. In 2002, the end of government support and allotment forced many smaller farmers out of business. While peanuts are still a force in Western Tidewater, and they continued to be the most reliably

profitable crop even for smaller-scale producers, China and Brazil are now the dominant players in the global peanut market (Bearinger n.d.).

Conversely, the meat packing and timbering industries in Isle of Wight County would continue to grow and the county would become home to two Fortune 500 companies: Smithfield Foods and International Paper Company. Despite all of the changes, agriculture continues to be an economic mainstay in Isle of Wight County with important crops being cotton, soy, and of course peanuts (Morrison and Gwaltney 2006). In the second half of the twentieth century and beyond, the project area remained relatively unchanged though there is evidence of logging in some portions (Figures 5-10 through 5-12).

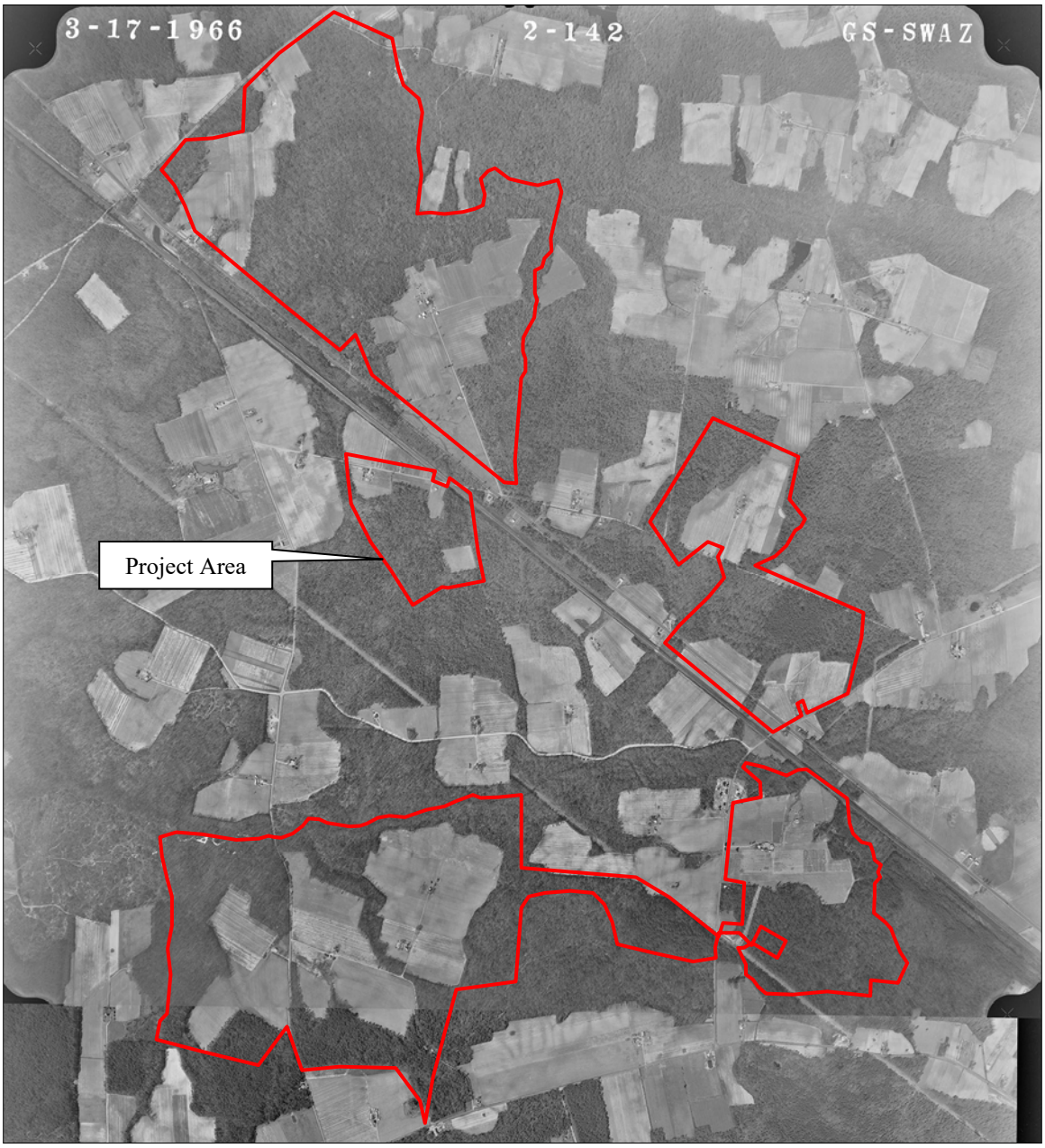


Figure 5-10: Detail of a 1966 aerial depicting the project area. Source: USGS

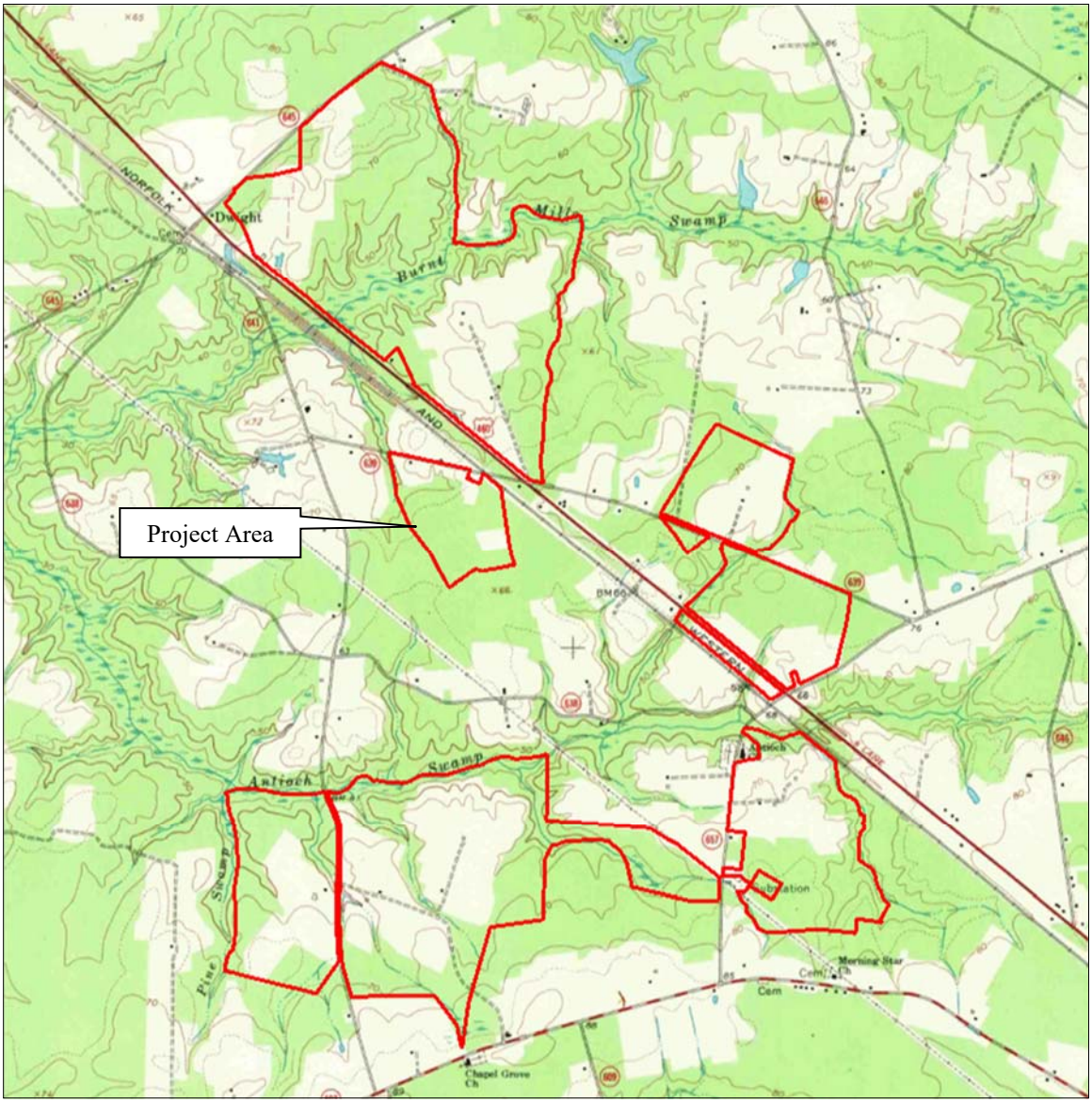


Figure 5-11: Detail of the 1984 *Zuni Quadrangle* depicting the project area. Source: USGS



Figure 5-12: Detail of a 1994 aerial depicting the project area. Source: Google Earth

6. FIELD SURVEY RESULTS

In March 2022, D+A conducted a Phase I architectural resource survey of the Carver Solar Project Area in Fauquier County, Virginia. The field effort consisted of survey and evaluation of all architectural resources aged fifty years of age or older located within one-half mile of the project area. The results of the survey are summarized below.

ARCHITECTURAL FIELD RESULTS

The architectural resources survey for the Carver Solar project resulted in the identification of a total of eighty-two (82) architectural resources greater than 50 years of age (constructed in 1972 or earlier) located within the survey area. Of the surveyed resources, fifty-four (54) were previously recorded (VDHR# 046-0034, 046-5057, 046-5086, 046-5088, 046-5089, 046-5099/5105, 046-5107/5111, 046-5113, 046-5114, 046-5277, 046-5293, 046-5294, 046-5307, 046-5501, and 091-5098) and twenty-eight (28) were newly recorded during this Phase I Survey (VDHR# 046-5664, 046-5668/5694). Twenty-nine (29) of the previously recorded resources were evaluated and determined not eligible for listing in the NRHP by the SHPO in 2020 and were therefore not subject to resurvey or evaluation as part of this effort (VDHR# 046-0116/0121, 046-0132, 046-5026/5029, 046-5055, 046-5056, 046-5087, 046-5112, 046-5154, 046-5295, 046-5296, 046-5298, 046-5569/5574/5577). An additional two (2) of the previously recorded resources (VDHR# 046-0034 and 046-5057) were revealed to have been demolished. V-CRIS site file forms were prepared or updated for each of resources subject to survey as part of this effort.

The resources surveyed as part of this effort primarily include domestic and agricultural buildings from the mid-nineteenth to late-twentieth century, as well as a nineteenth century family cemetery, a railroad corridor, and several twentieth century commercial buildings.

The survey area includes an area of predominantly rural land in central Isle of Wight County just to the west of the Town of Windsor. Windsor Boulevard (U.S.-460) and the Norfolk and Southern Railroad extend centrally through the survey area, paralleling each other and running east-west. A number of smaller secondary and tertiary roads also extend through the survey area.

Overall, the landscape of the survey area is characterized by generally flat land dissected by a network of creeks, swamps and drainages, the largest of which is Antioch Swamp that flows centrally through the survey area. The landscape is a patchwork of relatively large agricultural fields interspersed by pockets of woods and timber. The survey area is lightly developed with most homes and farms surrounded by large properties. The earliest development in the survey area, consisting generally of farms and plantation homes from the nineteenth century, are set back from the road with complexes of generally later barns and outbuildings. Twentieth century development tends to be set closer to the road on smaller lots that were likely carved off larger properties. Several pockets of denser mid-twentieth century homes set on small suburban style lots are situated along intersections of several of the secondary roads.

Most of the surveyed resources included modest frame or brick dwellings reflecting national trends in building styles of the late-nineteenth to mid-twentieth century, with Craftsman, Minimal

Traditional, and Ranch the most prevalent. Earlier dwellings include more vernacular forms such as bungalows and I-Houses.

As noted above, many of the architectural resources within the survey area have recently been determined not eligible for listing in the NRHP by the VDHR as common examples of typical rural development patterns. The majority of the resources evaluated as part of this effort are similar in age, form, and character and are thus recommended not eligible. Four resources, however, are considered eligible or potentially eligible including two homes, a commercial building, and the railroad. Of the two homes, the farm at 23255 Barrett Town Road (VDHR# 046-5089) has previously been determined potentially eligible as a good example of a mid-nineteenth century plantation home in the area with a relatively intact property and several potentially nineteenth century outbuildings. The second home, a farm located at 7431 Deerfield Drive (VDHR# 046-5671) is believed to have been built circa 1894, but replaced an eighteenth-century dwelling, and retains several nineteenth century outbuildings as well as family cemetery. The commercial building is the 1930s roadside "Hobb's Store" (VDHR# 046-5101) that has been determined eligible for its association to the development of U.S. 460 and a unique example of a service station with a complex of motor lodge cabins. The Norfolk and Western Railroad (VDHR# 091-5098) has also been determined potentially eligible for its association to the growth and development of commerce in the region from the nineteenth century through the present-day.

Provided in the following pages are a table of all surveyed resources (Table 6-1), a map with the location of each resource surveyed (Figure 6-1 and 6-2), and descriptive narratives and photographs of each of the identified historic resource. Resource narratives include a physical description, discussion of history, integrity, and NRHP-eligibility, as well as assessment of project impacts for those resources considered eligible for listing in the NRHP.

Table 6-1: Architectural Resources within the survey area. Bold font denotes NRHP-Eligible. Orange Highlight indicates resource is located directly within the project area

VDHR #	Property Name / Address	Year Built	NRHP Status
046-0034	Mumford House, Windsor Boulevard	c.1836	D+A: Demolished
046-5057	Barn, West Blackwater Road	c.1850	VDHR: Not Eligible (2004)/ D+A: Not Eligible
046-5086	Hedgepeth House, 22156 Barrett Town Road	1927	VDHR: Not Eligible (2004)/ D+A: Not Eligible
046-5088	House, 23000 Barrett Town Road	1948	VDHR: Not Eligible (2004)/ D+A: Not Eligible
046-5089	**Farm, 23255 Barrett Town Road**	**c.1850**	**VDHR: Potentially Eligible/ D+A: Potentially Eligible**
046-5099	House, 6456 Windsor Boulevard	1919	VDHR: Not Eligible (2004)/ D+A: Not Eligible
046-5100	House, 6470 Windsor Boulevard	1919	VDHR: Not Eligible (2004)/ D+A: Not Eligible
046-5101	**Hobbs Store, 6635 Windsor Boulevard**	**c.1933**	**VDHR: Eligible/ D+A: Potentially Eligible**
046-5102	House, 7229 Windsor Boulevard	1954	VDHR: Not Eligible (2004)/ D+A: Not Eligible
046-5103	House, 7416 Ecella Road	1935	VDHR: Not Eligible (2004)/ D+A: Not Eligible

VDHR #	Property Name / Address	Year Built	NRHP Status
046-5104	House, 7279 Ecella Road	1940	VDHR: Not Eligible (2004)/ D+A: Not Eligible
046-5105	Commercial Building, 8189 Windsor Boulevard	1900	VDHR: Not Eligible (2004)/ D+A: Not Eligible
046-5107	Mumford Family Cemetery, Yellow Hammer Road	c.1866	VDHR: Not Eligible (2004)/ D+A: Not Eligible
046-5108	House, 7230 Ecella Road	1921	VDHR: Not Eligible (2004)/ D+A: Not Eligible
046-5109	House, 21539 Barrett Town Road	1918	VDHR: Not Eligible (2004)/ D+A: Not Eligible
046-5110	House, 7121 Ecella Road	1950	VDHR: Not Eligible (2004)/ D+A: Not Eligible
046-5111	House, 8027 Winston Drive	1931	VDHR: Not Eligible (2004)/ D+A: Not Eligible
046-5113	House, 9155 Windsor Boulevard	1955	VDHR: Not Eligible (2004)/ D+A: Not Eligible
046-5114	House, 9169 Windsor Boulevard	1966	VDHR: Not Eligible (2004)/ D+A: Not Eligible
046-5277	House, 23258 Barrett Town Road	1900	VDHR: Not Eligible (2007)/ D+A: Not Eligible
046-5293	House, 21512 Barrett Town Road	1927	VDHR: Not Eligible (2009)/ D+A: Not Eligible
046-5294	House, 7132 Ecella Road	1944	VDHR: Not Eligible (2009)/ D+A: Not Eligible
046-5307	Commercial Granary, 22000 Barrett Town Road	1938	VDHR: Not Eligible (2009)/ D+A: Not Eligible
046-5501	House, 9108 Cut Thru Road	1942	VDHR: Not Eligible (2014)/ D+A: Not Eligible
046-5664	House, 7346 Yellow Hammer Road	1952	D+A: Not Eligible
046-5668	House, 7297 Yellow Hammer Road	1925	D+A: Not Eligible
046-5669	House, 7246 Yellow Hammer Road	1958	D+A: Not Eligible
046-5670	House, 7230 Yellow Hammer Road	1959	D+A: Not Eligible
046-5671	**Farm, 7431 Deerfield Drive**	**1894**	**D+A: Potentially Eligible**
046-5672	House, 7296 Deerfield Drive	1939	D+A: Not Eligible
046-5673	House, 7268 Deerfield Drive	1962	D+A: Not Eligible
046-5674	House, 6250 Yellow Hammer Road	1958	D+A: Not Eligible
046-5675	House, 6278 Yellow Hammer Road	1958	D+A: Not Eligible
046-5676	House, 8072 Winston Drive	1962	D+A: Not Eligible
046-5677	House, 9071 Cut Thru Road	1969	D+A: Not Eligible
046-5678	House, 22038 Garrison Drive	1969	D+A: Not Eligible
046-5679	House, 22004 Garrison Drive	1970	D+A: Not Eligible
046-5680	House, 21296 Garrison Drive	1962	D+A: Not Eligible
046-5681	House, 21416 Garrison Drive	1908	D+A: Not Eligible
046-5682	House, 7334 Ecella Road	1966	D+A: Not Eligible
046-5683	House, 7295 Ecella Road	1969	D+A: Not Eligible
046-5684	House, 22150 Barrett Town Road	1962	D+A: Not Eligible

VDHR #	Property Name / Address	Year Built	NRHP Status
046-5685	House, 22288 Barrett Town Road	1967	D+A: Not Eligible
046-5686	House, 22310 Barrett Town Road	1942	D+A: Not Eligible
046-5687	House, 22392 Barrett Town Road	1967	D+A: Not Eligible
046-5688	House, 21260 Leander Lane	c.1900	D+A: Not Eligible
046-5689	House, 8115 Windsor Boulevard	1963	D+A: Not Eligible
046-5690	House, 8089 Windsor Boulevard	1969	D+A: Not Eligible
046-5691	House, 7570 Windsor Boulevard	1962	D+A: Not Eligible
046-5692	Southern States, 9242 Windsor Boulevard	1971	D+A: Not Eligible
046-5693	House, 9141 Windsor Boulevard	1968	D+A: Not Eligible
046-5694	House, 7523 Mill Creek Drive	1947	D+A: Not Eligible
091-5098	**Norfolk & Western Railway**	**1858**	**VDHR: Eligible/ D+A: Potentially Eligible**
Resources Determined Eligible in 2020 (Not Subject to Survey or Evaluation as Part of this Effort)			
046-0116	Farm, 8151 Blackwater Road	c.1850	VDHR: Not Eligible (2020)
046-0117	House, 8299 Blackwater Road	1969	VDHR: Not Eligible (2020)
046-0118	Bostick Cemetery	1917	VDHR: Not Eligible (2020)
046-0119	Morning Star Baptist Church, 8445 Blackwater Road	1886	VDHR: Not Eligible (2020)
046-0120	House, 8503 Blackwater Road	1954	VDHR: Not Eligible (2020)
046-0121	House, 9177 Blackwater Road	c.1920	VDHR: Not Eligible (2020)
046-0132	Morning Star Baptist Cemetery, 8445 Blackwater Road	c.1950	VDHR: Not Eligible (2020)
046-5026	Farm, 7095 Blackwater Road	1900	VDHR: Not Eligible (2020)
046-5027	House, 7289 Blackwater Road	1946	VDHR: Not Eligible (2020)
046-5028	Chapel Grove Congregational Christian Church, 7366 Blackwater Road	1972	VDHR: Not Eligible (2020)
046-5029	House, 7443 Blackwater Road	1900	VDHR: Not Eligible (2020)
046-5055	House, 7058 Blackwater Road	c.1900	VDHR: Not Eligible (2020)
046-5056	House, 6483 Blackwater Road	1850	VDHR: Not Eligible (2020)
046-5087	House, 7683 Mill Creek Drive	1932	VDHR: Not Eligible (2020)
046-5112	Farm, 23093 Antioch Road	c.1820	VDHR: Not Eligible (2020)
046-5154	Antioch Christian Church, 23011 Antioch Road	1850	VDHR: Not Eligible (2020)
046-5295	House, 8021 Mill Creek Drive	1937	VDHR: Not Eligible (2020)
046-5296	House, 23050 Antioch Road	c.1850	VDHR: Not Eligible (2020)
046-5298	House, 8464 Blackwater Road	1963	VDHR: Not Eligible (2020)
046-5569	House, 8430 Blackwater Road	1969	VDHR: Not Eligible (2020)
046-5570	House, 8412 Blackwater Road	1968	VDHR: Not Eligible (2020)
046-5571	House, 8404 Blackwater Road	1967	VDHR: Not Eligible (2020)
046-5572	House, 8394 Blackwater Road	1969	VDHR: Not Eligible (2020)
046-5573	House, 8384 Blackwater Road	1969	VDHR: Not Eligible (2020)

VDHR #	Property Name / Address	Year Built	NRHP Status
046-5574	House, 8376 Blackwater Road	1969	VDHR: Not Eligible (2020)
046-5575	Antioch Christian Cemetery, Antioch Road	c.1850	VDHR: Not Eligible (2020)
046-5576	House, 7076 Blackwater Road	1960	VDHR: Not Eligible (2020)
046-5577	House, 7524 Blackwater Road	1969	VDHR: Not Eligible (2020)

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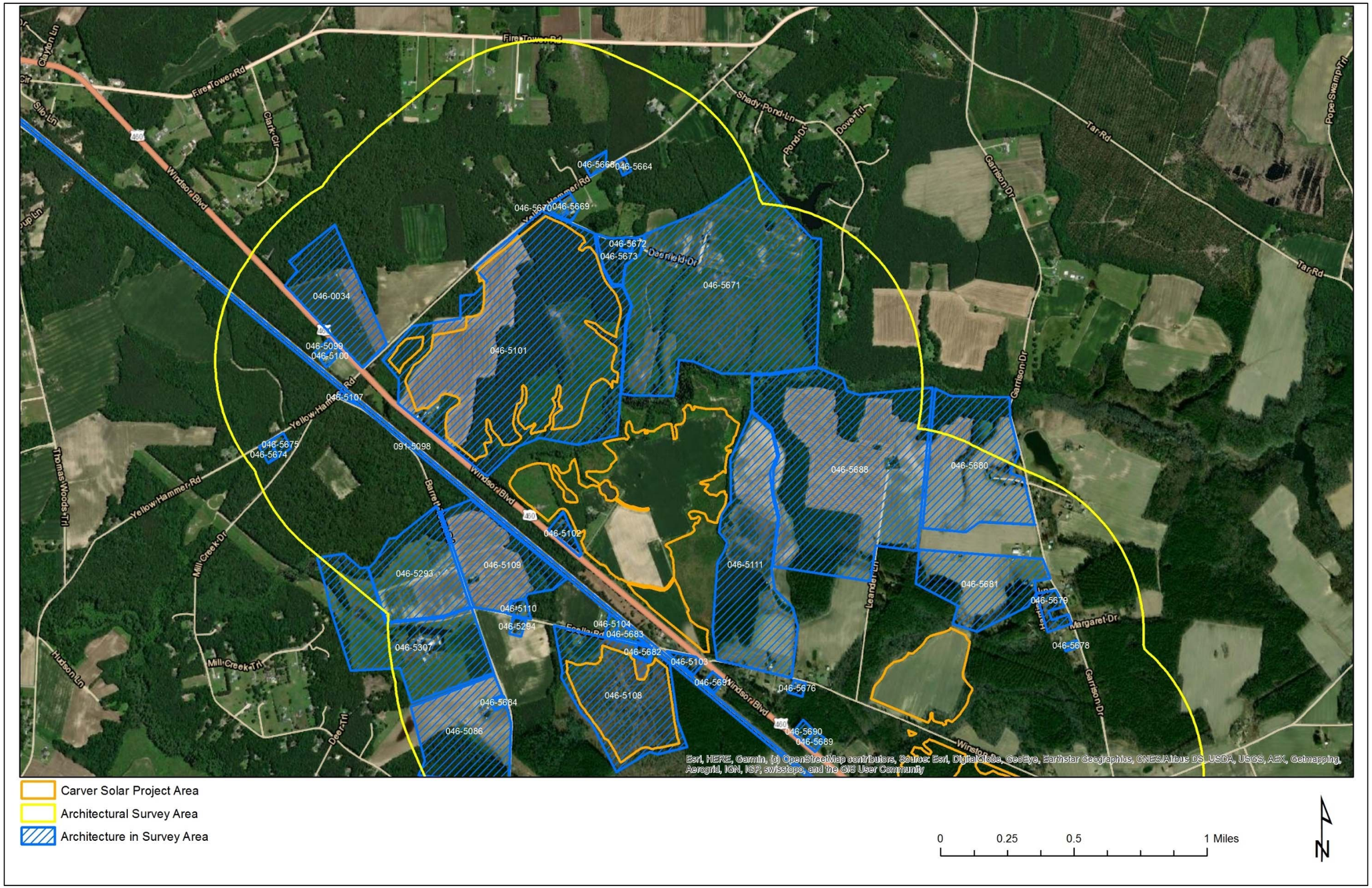


Figure 6-1: Location of surveyed architectural resources in relation to the project area.

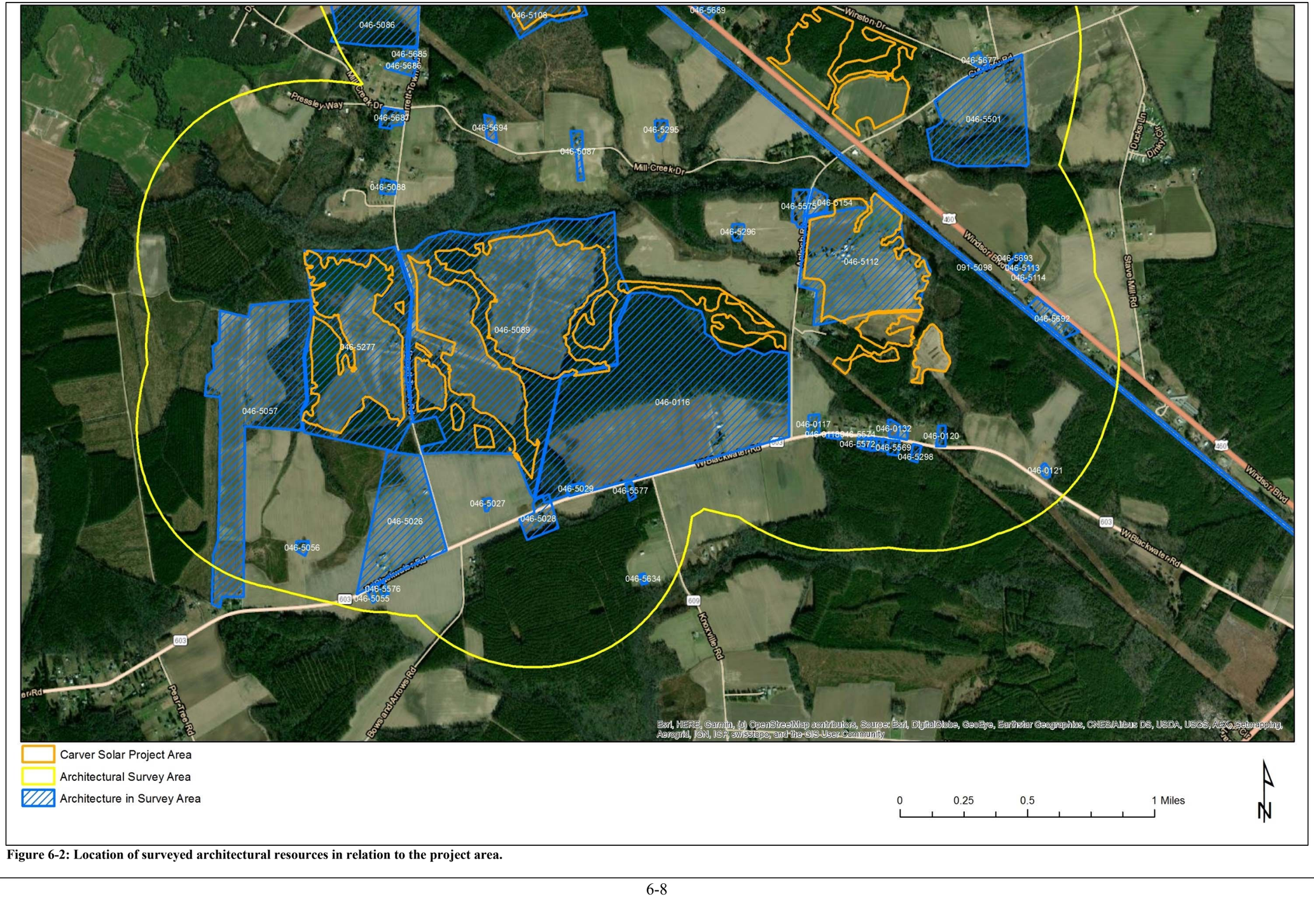


Figure 6-2: Location of surveyed architectural resources in relation to the project area.

RESOURCE NARRATIVES

VDHR# 046-0034
Mumford House, Windsor Boulevard



This house, located along Windsor Boulevard, was constructed circa 1836, according to a previous study. The building was previously described as a one-and-a-half-story, timber frame dwelling that rested atop a continuous, brick foundation. The house had exterior-end, brick chimneys and a one-bay front porch. When last surveyed in 2005, the house was in ruinous condition. Inspection as a part of this survey confirmed that the building is no longer extant and has been cleared from the site.

The house was located on the east side of Windsor Boulevard. It was set back roughly fifty feet from the road. According to a previous study, the house was accompanied by two ruinous outbuildings. Today, the site of the house is located in the center of an open field. Two trees stand behind the site to the east. No remnants of the house or outbuildings were observed.

According to a 1938 survey conducted by the Works Progress Administration, the home was built by C.F. Mumford circa 1836. Mumford lived in the house until 1879. The house then passed to Mumford's son, C.F. Mumford, Jr. Since the resource is no longer extant, and all evidence of the building has been cleared from the site, the resource is considered ***not eligible*** for listing in the NRHP as an architectural resource.

VDHR# 046-5057
Barn, West Blackwater Road



This barn, located along Windsor Boulevard, was constructed circa 1850, according to a previous study. The building was previously described as a one-and-a-half-story, frame barn with a front-gable roof and two shed-roofed wings. Inspection as a part of this survey confirmed that the building is no longer extant and has been cleared from the site.

The barn was located on the north side of West Blackwater Road. was set back roughly three hundred feet from the road. Today, the site is surrounded by an open field on all sides. A dirt driveway leads from the road and continues past the building site to the north. Two storage containers stand within the vicinity of the barn site. No remnants of the barn were observed.

According to a previous study, this barn was an example of a typical mid-nineteenth century, barn located within a rural setting in the region. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2004. Since this resource is no longer extant, and all evidence of the building has been cleared from the site, the resource is considered ***not eligible*** for listing in the NRHP as an architectural resource.

VDHR# 046-5086
Hedgepeth House, 22156 Barrett Town Road



This single-family dwelling, located at 22156 Barrett Town Road, was constructed in 1927, according to local land records. The building is a two-story, three-bay, Vernacular-style farmhouse with an I-house form. Its structural framework is wood frame, clad in aluminum siding, and it rests atop a continuous foundation. The roof is side-gabled and is covered with asphalt shingles. On the primary façade (east elevation), the main entrance consists of a central door sheltered by a partial-width porch. The hipped porch roof is covered with standing-seam metal and is supported by turned wood posts that rest atop a concrete deck. Fenestration consists of one-over-one, double-hung sash windows, which are accompanied by faux shutters. In terms of ornamentation, the house has gable returns along the front-gable ends.

The house is located in a rural area on the west side of Barrett Town Road. It is set back roughly one hundred feet from the road and sits in the center of a grassy yard. Shade trees and bushes grow around the house in the surrounding yard. The yard is surrounded by an agricultural field to the north, south, and west. A residential property fronts the yard to the east. A gravel driveway leads from the road and terminates behind the house to the southwest. An outbuilding of unknown function, a garage, and a barn stand behind the house to the west. In the side yard, a small outbuilding stands beside the house to the south.

This property is an example of a typical early-twentieth century, Vernacular-style I-house dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2004. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5088
House, 23000 Barrett Town Road



This single-family dwelling, located at 23000 Barrett Town Road, was constructed in 1948, according to local land records. The building is a one-story, four-bay, Vernacular-style house with a Bungalow form and a later wing addition. Its structural framework is wood frame, clad in vinyl weatherboards, and it rests atop a continuous, concrete block foundation. The roof is cross-gabled and is covered with asphalt shingles. On the primary façade (east elevation), the main entrance consists of an off-centered door sheltered by a partial-width porch. The hipped porch roof is covered with standing-seam metal and is supported by wooden posts that rest atop a wooden deck. Fenestration consists of one-over-one and six-over-six, double-hung sash windows, which are accompanied by faux shutters. In terms of ornamentation, the house is simple in design and has no additional ornamentation.

The house is located in a rural area on the west side of Barrett Town Road. It is set back roughly fifty feet from the road and sits in the center of a grassy yard. A gravel driveway leads from the road and terminates in front of the house to the east. A shed stands in the backyard to the southwest of the house. The property is bordered by residential properties along Barrett Town Road and by woods to the west.

This property is an example of a typical mid-twentieth century, Vernacular-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2004. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5089
Farm, 23255 Barrett Town Road



This single-family dwelling, located at 23255 Barrett Town Road, was constructed circa 1850, according to a previous study. The building is a two-story, three-bay, Vernacular-style farmhouse with an I-house form. The house includes elements of the Folk Victorian style, which were added to the house after its initial construction. Its structural framework is wood frame, clad in wood siding, and it rests atop a continuous, brick foundation. The roof is side-gabled and is covered with standing-seam metal. An exterior-end, brick chimney pierces the roof peak on each side of the house. On the primary façade (east elevation), the main entrance consists of a central door sheltered by a partial-width porch. The hipped porch roof is supported by turned wood posts that rest atop a wood deck. Fenestration consists of original, six-over-six, double-hung sash windows. In terms of ornamentation, the house has decorative, Victorian-style bargeboard attached to the tops of each porch post. The house is currently vacant.

The house is located in a rural area on the east side of Barrett Town Road. The house faces to the east rather than to the west. It is set back roughly two hundred feet from the road and sits in the center of a small, grassy yard. Two shade trees grow in the surrounding yard. A gravel driveway leads from the road, passes alongside the house to the south, and continues through the property. An agricultural field surrounds the yard on all sides. The field is interspersed with patches of woods. A tree line runs along the outer edge of the field on all sides. Within the immediate vicinity of the house, a domestic outbuilding and woodshed stand behind the house to the northwest. On the opposite side of the driveway, two barns and a quarter stand behind the house to the southwest. The farm is bordered by woods and open fields, as well as a tenant house on the west side of Barrett Town Road.

This property is a good example of a typical, moderately-embellished, mid-nineteenth century house and plantation in the region. The home reflects a transitional Federal to Greek Revival style as applied to a Vernacular I-house form, with a later Folk Victorian porch. It retains integrity of exterior finishes and materials. The house also remains at the center of a larger agricultural

property with a small collection of barns and outbuildings. Most are believed to date from the twentieth century, but several could possibly be older. Previous survey and evaluation by the VDHR found the resource to be potentially eligible for listing in the NRHP for its distinctive architecture, including most recently in 2020. At the time of this effort, the resource appears to retain similar integrity and qualities as when previously evaluated and therefore, no change is recommended. It continues to be considered ***potentially eligible*** for listing in the NRHP.

As a potentially NRHP-eligible resource within the survey area, an assessment of potential impacts brought about by the project is necessary. Because the property is located directly within and a part of the project area, this assessment considered both direct and indirect impacts. To assess impacts, inspection was performed and photographs taken from representative vantage points within and bordering the property to document existing setting, visibility, and lines of sight.

The farm at 23255 Barrett Town Road is situated centrally within a large rural tract on the east side of the road. The entire property parcel is included within the project lease area, and an additional tract of the project is set across the road to the west. As such, solar arrays, infrastructure, and other improvements will be made within and around the resource boundary, although the home and surrounding building complex will be excluded from the development footprint. The majority of improvements will be made within portions of the property that are currently open, agricultural field while avoiding wooded areas and wetlands, although several small patches of woodland near the edges of fields may be cleared and developed. As such, there will be a direct impact to the landscape and setting of the property, although not to the home or any other buildings. The existing field/vegetation patterns will also generally be maintained, as will the existing topography with no substantial cut, fill, or grading of the property proposed.

As project improvements will be spread through the property and in the vicinity of the building complex, the project also has the potential for indirect, or visual impacts to the resource. To reduce impacts, a variety of measures have been incorporated into the conceptual site plan. In addition to avoidance of the building complex, a swath of landscape to the front, between it and the road, will also be excluded from the development footprint. This avoidance area will maintain access to the resource with the existing farm lane, and preserve visibility of the building complex from public ROW. Improvements will be setback in all directions from the avoidance area, as well as along the road. Existing vegetation to the front and side of the building complex will be maintained. Where vegetation does not currently exist along the edge of the field to the front of the property, a robust supplemental buffer of evergreen trees will be planted to screen improvements. This buffer will be extended around the perimeter of the avoidance area to screen improvements in the background as well.

With these measures, the project will result in direct and indirect impacts to the resource through a change in setting and viewshed. However, key contributing aspects of the resource, including the home and associated outbuildings, and visibility of the building complex from the road will be preserved. The existing field/vegetation patterns of the property will also generally be maintained such that it may be returned to its current conditions at the conclusion of the project lease period. Therefore, it is D+A's opinion that the project will result in no more than a ***moderate impact*** to the farm at 23255 Barrett Town Road per VDHR's impact characterization.

Figure 6-3 illustrates the location of the farm at 23255 Barret Town Road in relation to the project area, with the location and direction of representative photographs. Figures 6-4 through 6-7 provide representative photographs of and from the resource towards the project area. Figure 6-8 and 6-9 provide a detail of the project conceptual site plan in relation to the property and building complex.

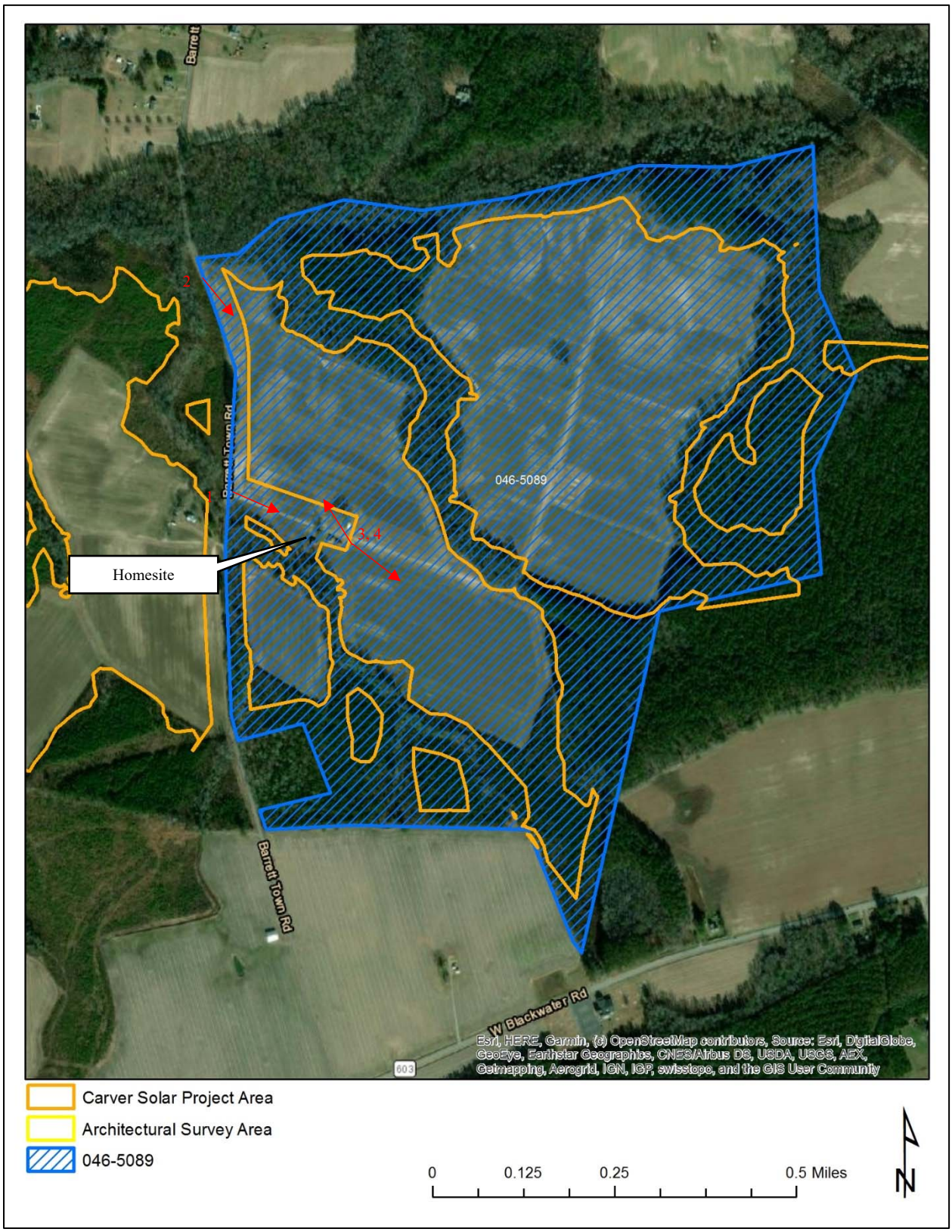


Figure 6-3: Farm at 23255 Barrett Town Road in relation to the project area with locations and directions of representative photographs.



Figure 6-4: View 1 - Farm at 23255 Barrett Town setting as seen from Barrett Town Road at property driveway, facing east.



Figure 6-5: View 2 - Farm at 23255 Barrett Town setting as seen from Barrett Town Road at Antioch Swamp, facing southeast.



Figure 6-6: View 3 – View of Farm at 23255 Barrett Town looking towards front field, facing northwest.



Figure 6-7: View 4 – View from Farm at 23255 Barrett Town towards rear field, facing east.

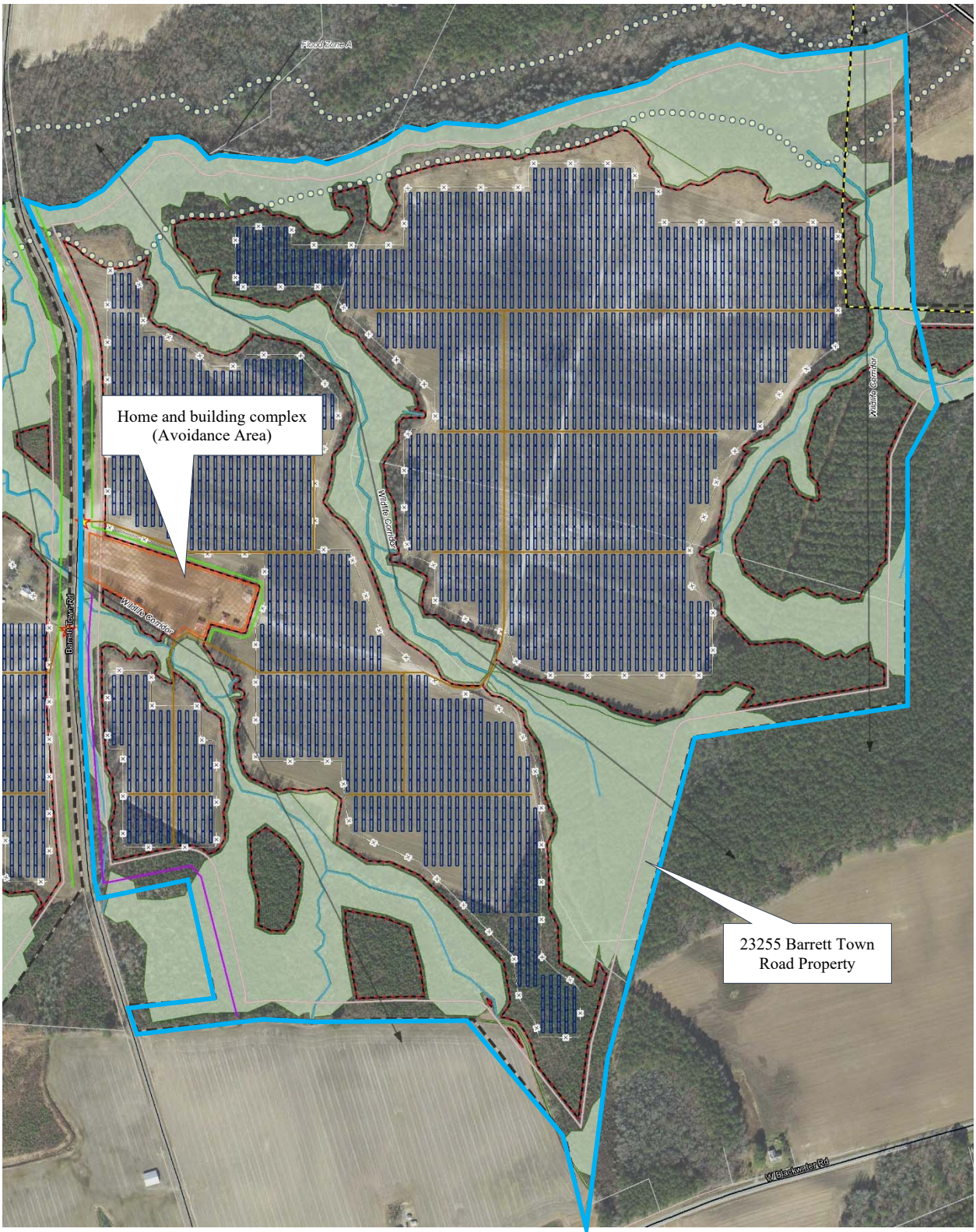


Figure 6-8: Carver Solar Conceptual Site Plan in relation to the 23255 Barrett Town Road property. Source: Timmons Group.

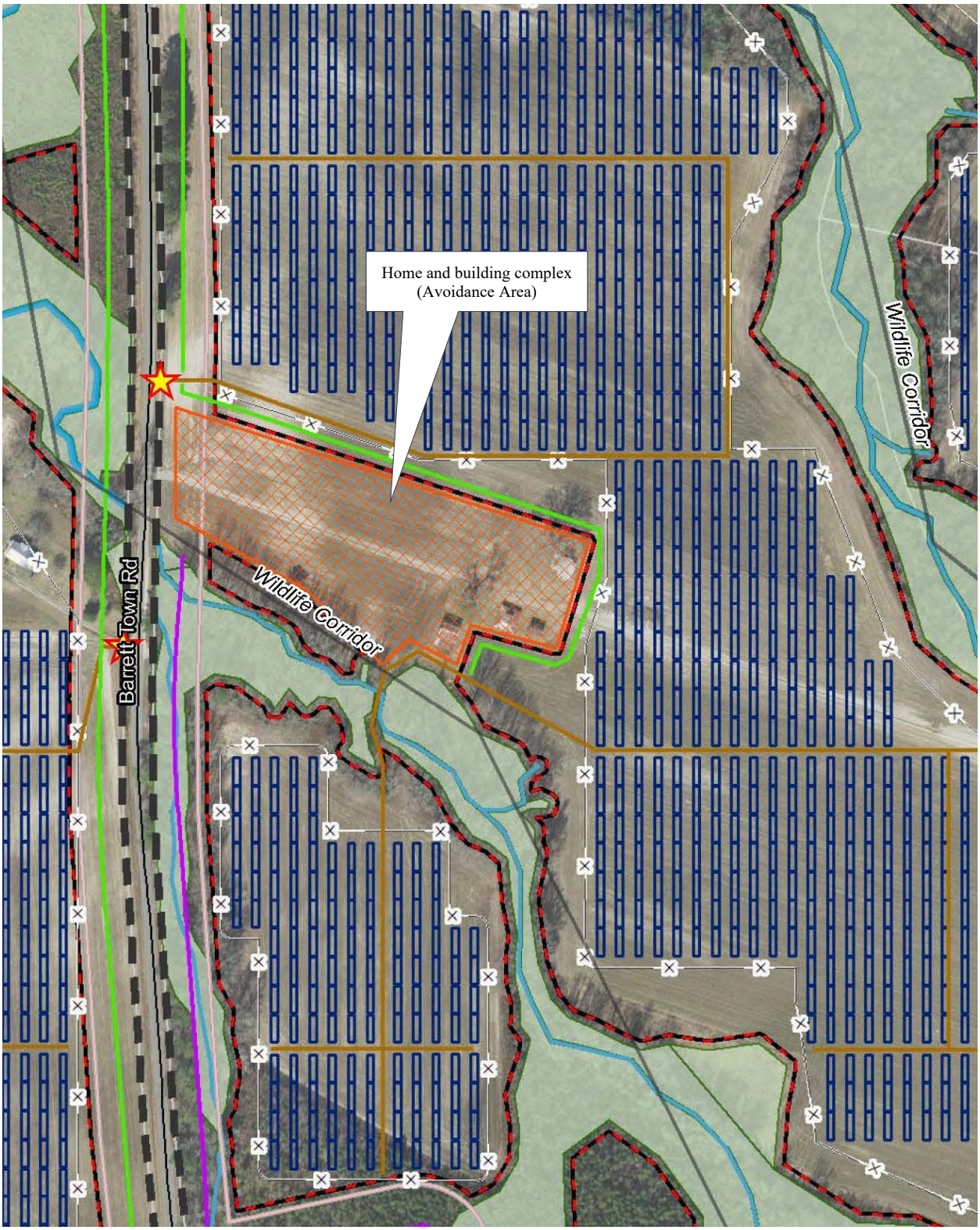


Figure 6-9: Carver Solar Conceptual Site Plan in relation to the 23255 Barrett Town Road building complex. Source: Timmons Group.

VDHR# 046-5099
House, 6456 Windsor Boulevard



This single-family dwelling, located at 6456 Windsor Boulevard, was constructed in 1919, according to local land records. The house is a one-story, Vernacular-style house with an L-shaped form. Its structural framework is wood frame, clad in vinyl weatherboards, and it rests atop brick piers; the space between each pier has been filled in with concrete. The roof is cross-gabled and is covered with standing-seam metal. On the primary façade (north elevation), the main entrance consists of an off-centered door, sheltered by a partial-width porch. Fenestration consists of six-over-six, double-hung sash windows and six-light, single-hung windows, which are accompanied by faux shutters. The house is simple in design and has no additional ornamentation.

The house is located in a rural area on the southwest side of Windsor Boulevard. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. Shade trees grow around the house in the surrounding yard and along the edge of the road. An asphalt driveway leads from the road and terminates beside the house to the north. A carport stands at the end of the driveway. To the northwest of the house is a well. In the backyard, two sheds and a carport stand to the west. The property is bordered by a residential property to the south and by woods to the north and west.

This property is an example of a typical early-twentieth century, Vernacular-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2004. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5100
House, 6470 Windsor Boulevard



This single-family dwelling, located at 6470 Windsor Boulevard, was constructed in 1919, according to local land records. The house is a one-story, six-bay, Vernacular-style house with an L-shaped form. While the original portion of the house consists of an L-shaped block, the house has undergone extensive renovation over time. A two-bay wing connects the house to a one-and-a-half-story garage along the north elevation. The structural system of the original house is wood frame, clad in vinyl weatherboards, and it rests atop a continuous, concrete foundation. The roof is side-gabled and is covered with asphalt shingles. Two interior-central, corbeled, brick chimneys pierce the original portion of the roof. On the primary façade (north elevation), two off-centered doors lead into the original portion of the house. The current main entrance is located along the east elevation. The doors are sheltered by an engaged porch, supported by wood posts. Fenestration consists of one-over-one, double-hung sash windows. The house has no additional ornamentation.

The house is located in a rural area on the southwest side of Windsor Boulevard. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. A gravel driveway leads from the road and terminates in front of the house. Four sheds and a large outbuilding stand behind the house to the southwest. A well house is located beside the house to the north. The property is bordered by a residential property to the north and by an open field to the south. A tree line separates the lot from a railroad corridor to the west.

This property is an example of a typical early-twentieth century, Vernacular-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. Due to extensive renovation, the house has poor historical integrity. As a result, the resource was previously determined not eligible for listing in the NRHP by the VDHR in 2004. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5101
Hobbs Store, 6635 Windsor Boulevard



This commercial building, located at 6635 Windsor Boulevard, was constructed circa 1933, according to a previous study. The building is a one-and-a-half-story, four-bay, Craftsman-style roadside store with a rectangular form. The store also functioned as a dwelling. The building rests atop a continuous, poured concrete foundation. Its structural framework is wood frame, clad in cast concrete blocks on the first level and in vinyl weatherboards on the upper half story. The roof is hipped and is covered with standing-seam metal. An interior-end, brick chimney pierces the roof slope. On the primary façade (south elevation), the main entrance consists of an off-centered door, sheltered by a porte cochere that spans the full width of the building. The porte cochere is supported by battered posts that rest atop concrete piers. Fenestration consists of two-over-two, double-hung sash windows and replacement, six-over-six, double-hung sash windows. In terms of ornamentation, the building has exposed rafters and battered porch posts. The store is vacant.

The store building is located in a rural area on the north side of Windsor Boulevard. It is set back roughly thirty feet from the road and sits within a small, grassy yard. Shade trees and shrubs grow in the surrounding yard. A gravel pull-off fronts the building to the south. The area underneath the front carport is paved with concrete. The backyard is enclosed by a wooden fence, with a well located inside of the fence line. To the east of the store, a gravel driveway leads from the road and terminates behind the store to the north at the back of the yard. Located along the driveway to the northeast of the store are two vehicle sheds, a barn, three silos, and three outbuildings of unknown function. To the east of the store in a small clearing are three small cabins. The yard is backed by an agricultural field to the north, which is bordered by woods to the east and west. The property is vacant.

According to a previous study, the property on which the store building now stands was once part of a farm owned by J.W. Hall. In 1916, farmer J.T. Johnson purchased two tracts from the Hall estate, which consisted of a 106-acre tract and a 31.39-acre tract. Johnson willed the property to his son, Lewis Johnson, in 1920. He continued operating the property as a farm. Then in 1930,

Route 460 was constructed along the edge of Johnson's property. At this time, Johnson constructed a store, gas pumps, and three tourist cabins along the road to accommodate travelers. The Johnson family lived in the rear portion of the store building and relied on their new business for income during the Great Depression. The cabins were used frequently by travelers during the early twentieth century, as they were one of few lodging options along Route 460 between Suffolk and Petersburg at the time. Following the death of Lewis Johnson in 1965, the store and cabins were closed. Lewis' widow, Eva, lived on the property until 1992. Eva Johnson then willed the property to her children, Helen Johnson Hobbs and Lewis Johnson. After the death of her brother, Helen became the sole owner. Helen Hobbs maintained the property and allowed a church congregation to meet in the store building until 2004. Today, the property is vacant.

The property was previously determined eligible for listing in the NRHP by the VDHR in 2004. It is eligible under Criterion A due to its association with roadside tourist cabins of the early twentieth century. The rise of the automobile and major road improvements during the time led to the construction of similar roadside stops and attractions. Located on the Hobbs property today are the only remaining example of tourist cabins found along Route 460. Further, the property is eligible under Criterion C, as the property is representative of roadside architecture during the 1930s. Despite the property's current vacant status, the historic store and cabins retain a high degree of historical integrity. At this time, D+A recommends that the resource continue to be considered ***eligible*** for listing in the NRHP.

As an NRHP-eligible resource within the survey area, an assessment of potential impacts brought about by the project is necessary. Because the property is located directly within and a part of the project area, this assessment considered both direct and indirect impacts. To assess impacts, inspection was performed and photographs taken from representative vantage points within and bordering the property to document existing setting, visibility, and lines of sight.

The Hobb's Store is situated centrally within a large rural tract on the north side of the Windsor Boulevard. The entire property parcel is included within the project lease area. As such, solar arrays, infrastructure, and other improvements will be made within and around the resource boundary, although the primary commercial building and surrounding building complex will be excluded from the development footprint. Improvements will be made throughout the majority of the property, including areas currently cleared for agricultural as well as currently wooded areas, although wetlands along the eastern edge of the property will be avoided and left vegetated. As such, there will be a direct impact to the landscape and setting of the overall property, although not to any of the buildings or surrounding yardspace. Although the existing field/vegetation patterns will also be altered, the existing topography will be maintained with no substantial cut, fill, or grading of the property proposed.

As project improvements will be spread through the property and in the vicinity of the building complex, the project also has the potential for indirect, or visual impacts to the resource. To reduce impacts, a variety of measures have been incorporated into the conceptual site plan. As a part of the avoidance of the building complex, the surrounding yard space area, as well as an adjacent woodland area will also be excluded from the development footprint. This avoidance area will maintain access to the resource with the existing driveway, and preserve visibility of the building complex from public ROW. Improvements will be setback in all directions from the avoidance area, as well as along the road to maintain sight lines of the building complex from public ROW

in each direction. Existing vegetation throughout the building complex and to the east side will be maintained and where vegetation does not currently exist along the front of the field to the west of the property, a robust supplemental buffer of evergreen trees will be planted to screen improvements. This buffer will be extended around the perimeter of the avoidance area to screen improvements in the background as well.

With these measures, the project will result in direct and indirect impacts to the resource through a change in setting and viewshed. However, key contributing aspects of the resource, including the home and associated outbuildings, and visibility of the building complex from the road will be preserved. It is also noted that as a roadside commercial building and motel complex, the character-defining aspect of its setting is the immediate yard and the connectivity to the road, both of which will remain intact and preserved as part of the avoidance area. The agricultural fields and wooded areas to the rear are a component of the resource's larger setting, however, do not substantially contribute to its significance in the area of commerce as a roadside commercial building, or in the area of architecture for its intact representation of roadside tourist cabins. Therefore, it is D+A's opinion that the project will result in no more than a ***minimal impact*** to the Hobb's Store per VDHR's impact characterization.

Figure 6-10 illustrates the location of the Hobbs Store in relation to the project area, with the location and direction of representative photographs. Figures 6-11 through 6-16 provide representative photographs of and from the resource towards the project area. Figures 6-17 and 6-18 provide a detail of the conceptual site plan in relation to the resource.

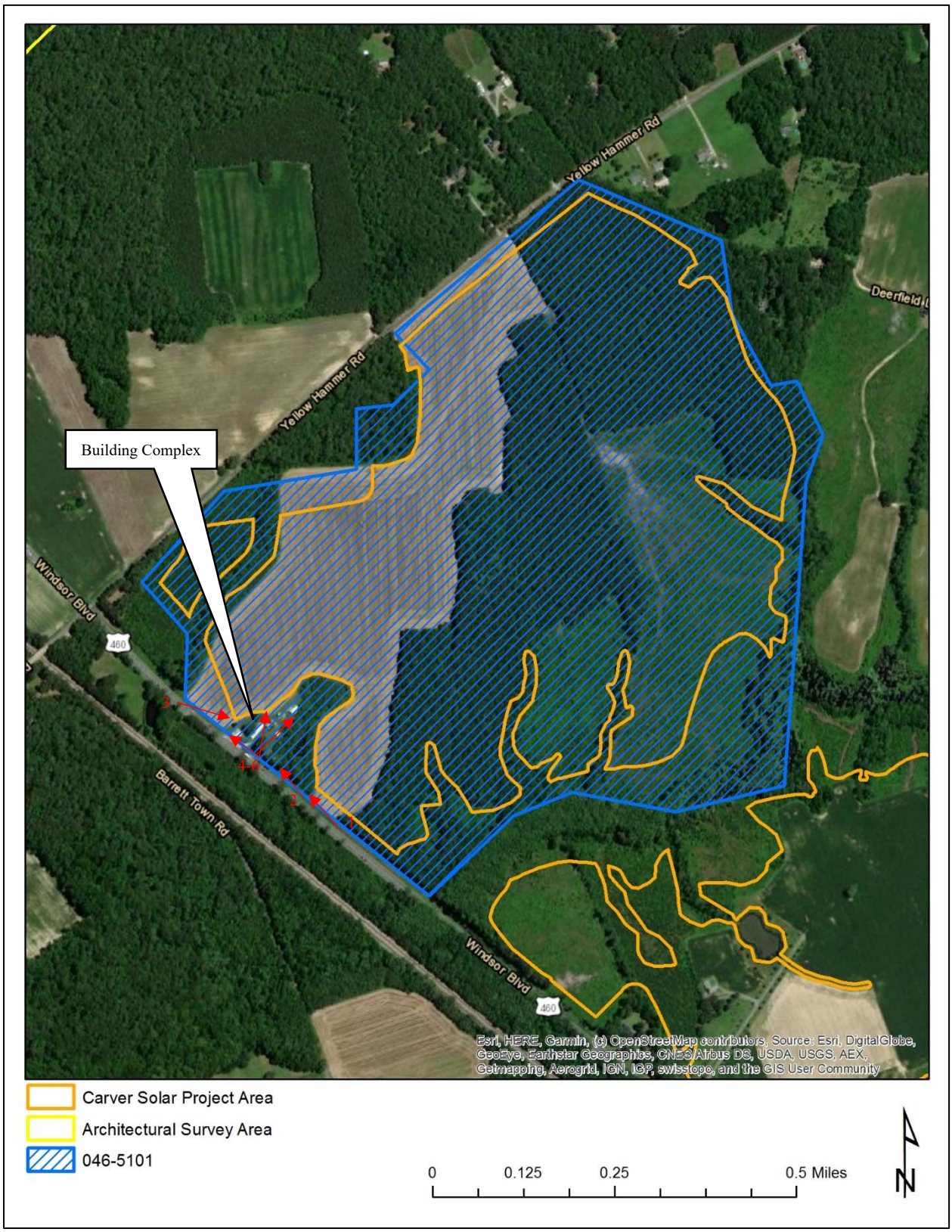


Figure 6-10: Hobb's Store in relation to the project area with locations and directions of representative photographs.



Figure 6-11: View 1 – View from U.S. 460 east of Hobb's Store property, facing northwest.



Figure 6-12: View 2 – View from U.S. 460 in front of Hobb's Store property, facing northwest.



Figure 6-13: View 3 – View from U.S. 460 west of Hobb's Store property, facing southeast.



Figure 6-14: View 4 – View from Hobb's Store driveway, facing northwest.



Figure 6-15: View 5 – View from Hobb's Store driveway, facing north.



Figure 6-16: View 6 – View from Hobb's Store driveway, facing northeast.

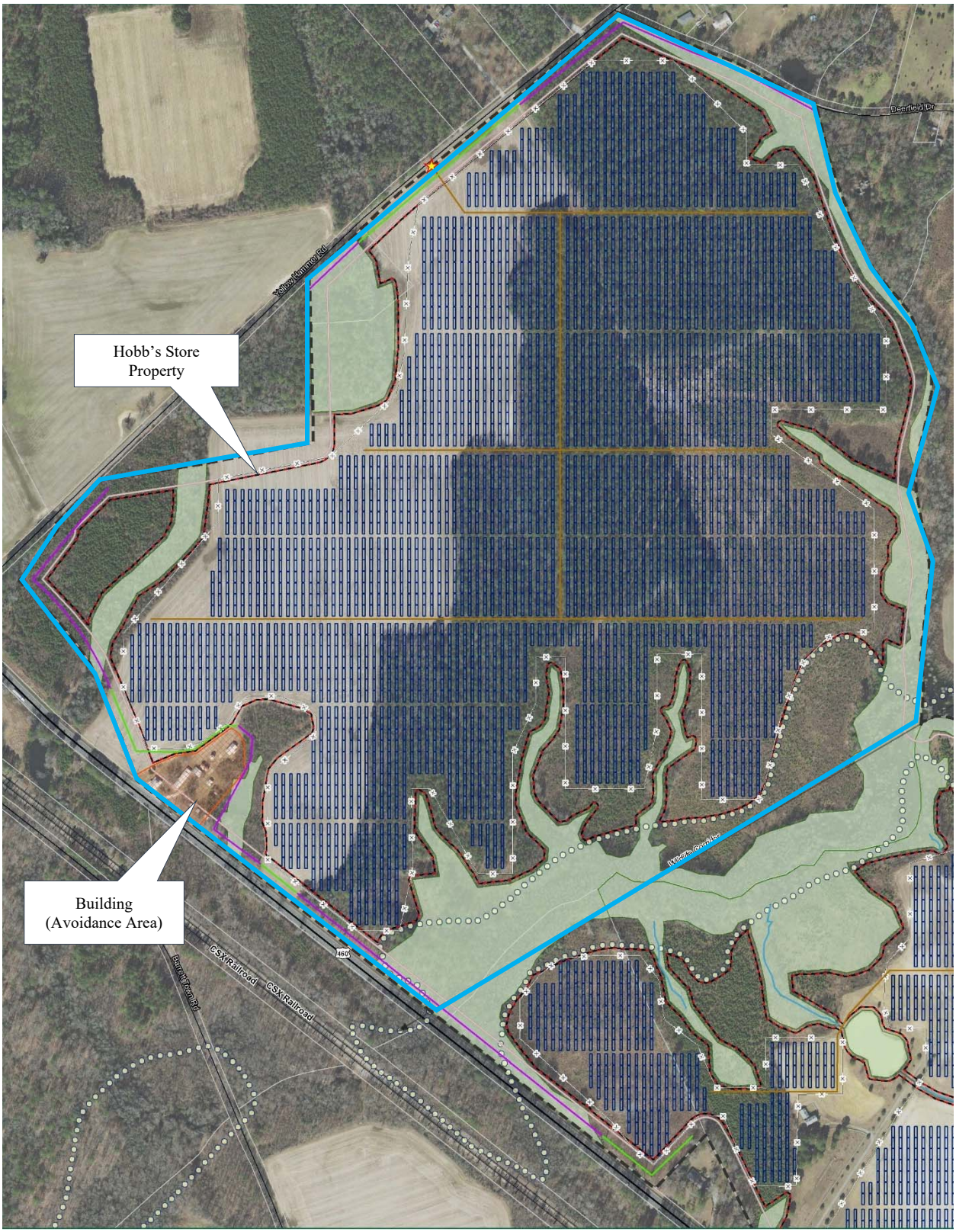


Figure 6-17: Carver Solar Conceptual Site Plan in relation to the Hobb's Store property. Source: Timmons Group.

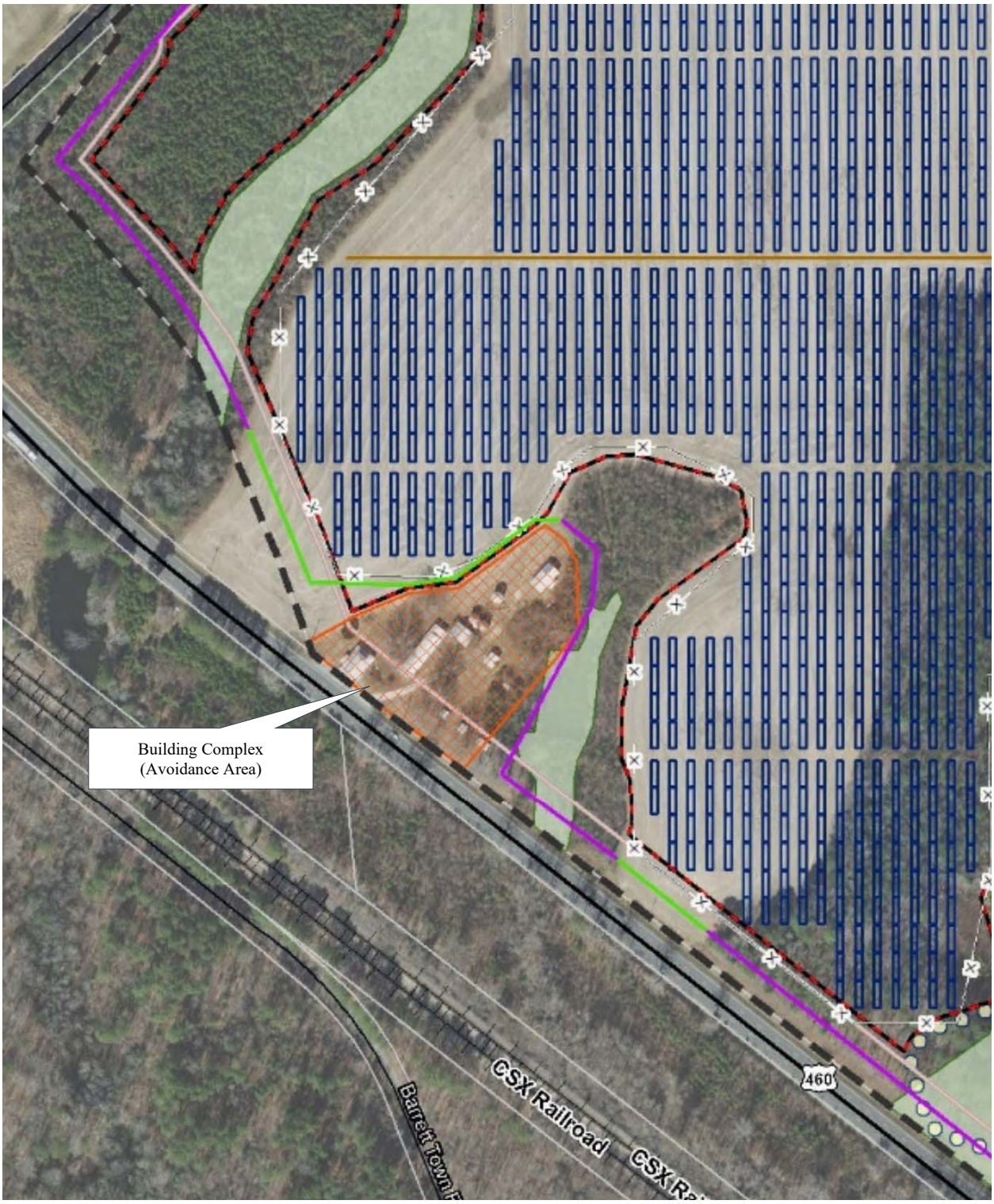


Figure 6-18: Carver Solar Conceptual Site Plan in relation to the Hobb's Store building complex. Source: Timmons Group.

VDHR# 046-5102
House, 7229 Windsor Boulevard



This single-family dwelling, located at 7229 Windsor Boulevard, was constructed in 1954, according to local land records. The building is a one-story, four-bay, Ranch-style house with a rectangular form. Its structural system is brick, laid in a running bond, and it rests atop a continuous, brick foundation. The roof is side-gabled and is covered with asphalt shingles. An interior-slope, brick chimney pierces the roof. On the primary façade (west elevation), the main entrance consists of an off-centered door, sheltered by a slight roof overhang and accessed by a brick stoop. Fenestration consists of six-over-six, double-hung sash windows, which are accompanied by faux shutters. The house has an attached sunroom along the south elevation. In terms of ornamentation, the front door has a decorative, molded door surround. Additionally, a large picture window is located on the front elevation.

The house is located in a rural area on the north side of Windsor Boulevard. It is set back roughly fifty feet from the road and sits in the center of a grassy yard. A large number of trees grow around the house in the surrounding yard. The house is accessed by a gravel driveway, which leads from the road and terminates beside the house to the east. Two outbuildings stand along the driveway to the southeast. The property is bordered by woods and open fields.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2004. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5103
House, 7416 Ecella Road



This single-family dwelling, located at 7416 Ecella Road, was constructed in 1935, according to local land records. The building is a one-story, three-bay, Vernacular-style house with a rectangular form. The house consists of a two-bay main block with a one-bay wing along the east elevation. The structural framework of the house is wood frame, clad in aluminum siding, and it rests atop a continuous, poured concrete foundation. The roof is cross-gabled, with a deep overhang, and is covered with asphalt shingles. On the primary façade (north elevation), the main entrance consists of an off-centered door, accessed by a concrete stoop. Fenestration consists of one-over-one, double-hung sash windows, which are accompanied by faux, vinyl shutters. The house is simple in design and has no additional ornamentation.

The house is located in a rural area on the south side of Ecella Road at its intersection with Windsor Boulevard. The house is set back roughly thirty feet from the road and sits in the center of a grassy yard. Shade trees grow around the house in the surrounding yard and along the road. A gravel driveway leads from the road and terminates beside the house to the northwest. A shed stands behind the house to the south. The property is bordered by residential properties to the east and west.

This property is an example of a typical early-twentieth century, Vernacular-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2004. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5104
House, 7279 Ecella Road



This single-family dwelling, located at 7279 Ecella Road, was constructed in 1940, according to local land records. The building is a one-story, three-bay, Vernacular-style house with an L-shaped form. The house has two large, rear additions along the north elevation. The structural framework of the house is wood frame, clad in green, vinyl weatherboards, and it rests atop a continuous, poured concrete foundation. The roof is side-gabled and is covered with asphalt shingles. On the primary façade (south elevation), the main entrance consists of an off-centered door, sheltered by a metal awning and accessed by a wooden deck. Fenestration consists of one-over-one, double-hung sash windows. The house is simple in design and has no additional ornamentation.

The house is located in a rural area on the north side of Ecella Road. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. A gravel driveway leads from the road and terminates beside the house to the west. In the backyard, a shed stands behind the house to the northeast. The property is bordered by residential properties along Ecella Road.

This property is an example of a typical early-twentieth century, Vernacular-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2004. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5105
Commercial Building, 8189 Windsor Boulevard



This commercial building, located at 8189 Windsor Boulevard, was constructed in 1900, according to local land records. The building is a one-story, five-bay commercial building with a rectangular form and no discernible style. The building consists of a three-bay, main block with a two-bay addition along the east elevation. Its structural system is wood frame, clad in asbestos shingles, and it rests atop a continuous foundation. The roof is front-gabled and is covered with asphalt shingles. An interior-central, concrete block chimney pierces the roof peak. On the primary façade (south elevation), the main entrance consists of a central door. Fenestration consists of sash windows and fixed, commercial windows, although no window fixtures remain in place. In terms of ornamentation, the front elevation of the building has a parapeted wall. The building is vacant and in poor condition.

The store is located in a rural area on the north side of Windsor Boulevard. It is set back roughly fifty feet from the road and sits at the edge of an overgrown tree line. The yard fronting the store to the south is full of tall vegetation. Behind the building to the north is an open field, bordered by woods on all sides. Along the eastern and western edges of the field are five outbuildings of unknown function. The property is bordered by residential properties to the west and by woods to the east.

This property is an example of a typical early-twentieth century commercial building located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. Further, the building remains in poor condition with compromised historical integrity. As a result, it was previously determined not eligible for listing in the NRHP by the VDHR in 2004. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5107
Mumford Family Cemetery, Yellow Hammer Road



This cemetery, located along Yellow Hammer Road, was established circa 1866, according to written data. The cemetery includes three regularly-spaced headstones, one of which marks the spot of two burials. The graves face southward. Two of observed headstones are granite tablets with textual inscriptions about the interred, while the remaining headstone is made of carved granite. This third grave marker features an arch that rests atop two columns (one for each person buried there); a granite urn rests atop the arch. The two granite tablets feature simple carvings along the front sides. The headstones are in fair condition.

The cemetery is located on the east side of Yellow Hammer Road at its intersection with Barrett Town Road. It is located at the northern edge of the parcel and is set back roughly fifty feet from Barrett Town Road. The area immediately surrounding the grave markers is open and covered with brush. A tree line borders the small clearing on all sides. There is no evidence of a fence or other enclosure. To the north of the cemetery is a railroad bed. The parcel is bordered by woods to the east and by Yellow Hammer Road to the west.

The Mumford Family Cemetery was once located on the Mumford farm and remained in use from the mid-nineteenth century through the early twentieth century. It is associated with the Mumford House (VDHR# 046-0034), which was constructed circa 1836 by C.F. Mumford. The house once stood less than half of a mile north of the cemetery and continued to pass through the Mumford family through the early twentieth century. The interred individuals represent members of a single household that once resided in the Mumford house; they were descendants of C.F. Mumford. The cemetery includes the following burials: Virginia Mumford (1826-1866), Nathan Mumford (1809-1877), Alonzo H. Mumford (1851-1886), and N.E.H. Mumford (1856-1921). The cemetery is an undistinguishable example of a typical mid-nineteenth century, rural family cemetery and does not embody distinctive characteristics or possess significant or unique architectural or design features. There is no dwelling or any other associated improvements extant on the property. The cemetery therefore does not meet NRHP Criterion Consideration D and was previously determined not eligible for listing in the NRHP by the VDHR in 2004. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5108
House, 7230 Ecella Road



This single-family dwelling, located at 7230 Ecella Road, was constructed in 1921, according to local land records. The building is a one-story, three-bay, Craftsman-style house with a rectangular form. Its structural framework is wood frame, clad in vinyl weatherboards, and it rests atop a continuous, brick foundation. The roof is side-gabled and is covered with asphalt shingles. An exterior-end, brick chimney pierces the roof peak. On the primary façade (north elevation), the main entrance consists of a central door, sheltered by a three-bay porch. The front-gable porch roof is supported by four battered posts that rest atop brick piers. Fenestration consists of one-over-one, double-hung sash windows. In terms of ornamentation, the house has gable returns on the front-gable ends of the house and on the front porch.

The house is located in a rural area on the south side of Ecella Road. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. The yard is surrounded by an agricultural field on all sides. A gravel driveway leads from the road and terminates beside the house to the east. In the backyard, a garage, vehicle shed, and animal shelter stand behind the house to the south and southeast. The property is bordered by other residential properties and farms along Ecella Road.

This property is an example of a typical early-twentieth century, Craftsman-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2004. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5109
House, 21539 Barrett Town Road



This single-family dwelling, located at 21539 Barrett Town Road, was constructed in 1918, according to local land records. The building is a one-and-a-half-story, four-bay, Vernacular-style house with later additions to the side and rear. The house consists of a one-and-a-half-story, three-bay, original block with a one-bay, side wing along the north elevation. Its structural framework is wood frame, clad in vinyl weatherboards, and it rests atop a continuous, concrete foundation. The side-gabled roof has a central cross-gable and is covered with standing-seam metal. An interior-end, brick chimney pierces the roof peak. On the primary façade (west elevation), the main entrance consists of a central door, sheltered by a one-bay entry porch. The gable porch roof is supported by wood posts. Fenestration consists of one-over-one, four-over-four, and six-over-six, double-hung sash windows. In terms of ornamentation, the house has a picture window and front-facing, central gable on the front elevation.

The house is located in a rural area on the east side of Barrett Town Road. It is set back roughly fifty feet from the road and sits in the center of a grassy yard. Shade trees and foundation plantings grow around the house in the surrounding yard. The yard is surrounded by a cultivated field on three sides. A gravel driveway leads from the road and terminates behind the house to the east in front of a garage. To the immediate west of the garage is a small well. The property is bordered by woods to the north and east, and by Ecella Road to the south. What was once likely a tenant house or secondary dwelling (VDHR# 046-5110) is located on the same parcel but is situated along Ecella Road to the southeast.

This property is an example of a typical early-twentieth century, Vernacular-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2004. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5110
House, 7121 Ecella Road



This single-family dwelling, located at 7121 Ecella Road, was constructed in 1950, according to local land records. The building is a one-story, three-bay, Minimal Traditional-style house with a rectangular form. Its structural framework is wood frame, clad in vinyl weatherboards, and it rests atop a continuous, concrete block foundation. The roof is cross-gabled and is covered with standing-seam metal. On the primary façade (south elevation), the main entrance consists of an off-centered door, sheltered by a partial width porch. The shed porch roof is supported by wooden posts that rest atop a concrete block base. Fenestration consists of six-over-six, double-hung sash windows. In terms of ornamentation, the house is simple in design and has no additional ornamentation.

The house is located in a rural area on the north side of Ecella Road. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. A large number of shade trees grow around the house in the surrounding yard. A gravel driveway leads from the road and terminates beside the house to the east in front of a carport. The property is bordered by an open field to the west and by residential properties to the east. While a separate property, the house likely served as a tenant house or secondary dwelling for a neighboring farm (VDHR# 046-5109) along Barrett Town Road; both houses are located on the same parcel.

This property is an example of a typical mid-twentieth century, Minimal Traditional-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2004. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5111
House, 8027 Winston Drive



This single-family dwelling, located at 8027 Winston Drive, was constructed in 1931, according to local land records. The building is a one-and-a-half-story, three-bay, Craftsman-style house with a Bungalow form. Its structural framework is wood frame, clad in vinyl weatherboards, and it rests atop a continuous, brick foundation. The roof is side-gabled, with a steep pitch, and is covered with standing-seam metal. Two interior-central, brick chimneys pierce the roof peak. Additionally, a large, gable dormer pierces the front roof slope. On the primary façade (south elevation), the main entrance consists of a central door, sheltered by an engaged, full-width porch. The porch roof is supported by four battered posts that rest atop brick piers. Fenestration consists of two-over-two, double-hung sash windows and four-light, single-hung sash windows. In terms of ornamentation, the door and windowsills, as well as the porch deck, are painted pastel green and the siding is painted pastel yellow. Three painted brackets are located at the roof eaves and roof peak on the dormer.

The house is located in a rural area on the north side of Winston Drive. It is set back roughly fifty feet from the road and is situated in the center of a grassy yard. The yard is bordered by agricultural fields, interspersed with a large patch of woods, to the north. Shade trees grow around the house in the surrounding yard. A gravel driveway leads from the road and terminates behind the house to the northeast in front of a large shed. Set to the northwest of the house in the back field is an outbuilding of unknown function. The property is bordered by woods to the west and by residential properties to the west.

This property is an example of a typical early-twentieth century, Craftsman-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2004. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5113
House, 9155 Windsor Boulevard



This single-family dwelling, located at 9155 Windsor Boulevard, was constructed in 1955, according to local land records. The building is a one-story, six-bay, Ranch-style house with a rectangular form. The house consists of a three-bay, central block with a one-bay, brick wing along the west elevation and a one-bay, frame wing along the east elevation. Its structural system is brick, laid in a running bond, and it rests atop a continuous, brick foundation. The roof is side-gabled, with a central, front-facing gable, and is covered with asphalt shingles. An exterior, brick chimney pierces the roof on the front elevation of the house. On the primary façade (south elevation), the main entrance consists of a central door sheltered by a metal awning, supported by metal posts. Fenestration consists of one-over-one, double-hung sash windows. In terms of ornamentation, a fanlight is located above the front door. Additionally, the door is surrounded by a molded door frame topped by a triangular pediment.

The house is located in a rural area on the north side of Windsor Boulevard. It is set back roughly fifty feet from the road and sits in the center of a grassy yard. Small trees grow in front of the house. A gravel driveway leads from the road and terminates behind the house to the north in front of a garage. A concrete sidewalk leads from the driveway to the front door. The property is bordered by residential properties to the east and west.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2004. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5114
House, 9169 Windsor Boulevard



This single-family dwelling, located at 9169 Windsor Boulevard, was constructed in 1966, according to local land records. The building is a one-story, five-bay, Ranch-style house with a rectangular form. Its structural system is brick, laid in a running bond, and it rests atop a continuous, brick foundation. The roof is hipped and is covered with asphalt shingles. An interior-end, brick chimney pierces the roof peak. On the primary façade (south elevation), the main entrance consists of a central door sheltered by a one-bay, entry porch. The porch roof is supported by vinyl posts that rest atop a brick base. Fenestration consists of six-over-six, double-hung sash windows, which are accompanied by faux shutters. In terms of ornamentation, the house has a picture window on the front elevation.

The house is located in a rural area on the north side of Windsor Boulevard. It is set back roughly fifty feet from the road and sits in the center of a grassy yard. A gravel driveway leads from the road and terminates behind the house to the northeast in front of a garage. The property is bordered by residential properties to the west and by an open field to the east.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2004. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5277
House, 23258 Barrett Town Road



This single-family dwelling, located at 23258 Barrett Town Road, was constructed in 1900, according to local land records. The building is a one-story, three-bay, Vernacular-style house with a Bungalow form. Its structural system is wood frame, clad in wood weatherboards, and it rests atop a continuous, brick foundation. The roof is front-gabled and is covered with standing-seam metal. Two interior-slope, brick chimneys and one interior-central, brick chimney pierce the roof. On the primary façade (east elevation), the main entrance consists of a slightly off-centered door, sheltered by a partial-width porch. The hipped porch roof is supported by wood posts that rest atop brick piers. Fenestration consists of six-over-six, double-hung sash windows. In terms of ornamentation, the house has exposed rafters.

The house is located in a rural area on the west side of Barrett Town Road. It is set back roughly fifty feet from the road and sits in the center of a grassy yard. A gravel driveway leads from the road and terminates beside the house to the south. A shed, domestic outbuilding, and garage stand behind the house to the west. The yard is surrounded by an agricultural field to the west and south, and by woods to the north. The back field is bordered by woods on all sides.

This property is an example of a typical early-twentieth century, Vernacular-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2007. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5293
House, 21512 Barrett Town Road



This single-family dwelling, located at 21512 Barrett Town Road, was constructed in 1927, according to local land records. The building is a one-and-a-half-story, three-bay, Vernacular-style house with a Bungalow form. Its structural system is wood frame, clad in vinyl weatherboards, and it rests atop a continuous, concrete foundation. The roof is side-gabled and is covered with standing-seam metal. A shed dormer pierces the front roof slope. On the primary façade (east elevation), the main entrance consists of an off-centered door, sheltered by a metal awning. Fenestration consists of one-over-one, double-hung sash windows, which are accompanied by faux shutters. In terms of ornamentation, the house is simple in design and has no additional ornamentation.

The house is located in a rural area on the west side of Barrett Town Road. It is set back roughly fifty feet from the road and sits in the center of a grassy yard. The yard is surrounded by agricultural fields on all sides. A gravel driveway leads from the road and loops around the house. Behind the house to the west is a carport and garage. The property is bordered by woods to the north and by a farm to the south.

This property is an example of a typical early-twentieth century, Vernacular-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2009. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5294
House, 7132 Ecella Road



This single-family dwelling, located at 7132 Ecella Road, was constructed in 1944, according to local land records. The building is a one-story, three-bay, Vernacular-style house with a rectangular form. Its structural system is wood frame, clad in vinyl weatherboards, and it rests atop a continuous foundation. The roof is cross-gabled and is covered with standing-seam metal. An interior-central, brick chimney and exterior-end, brick chimney pierce the roof peak. On the primary façade (north elevation), the main entrance consists of an off-centered door, sheltered by a partial-width porch. The hipped porch roof is supported by wood posts. Fenestration consists of one-over-one, double-hung sash windows, which are accompanied by faux shutters. In terms of ornamentation, the house has gable returns on the front-gable ends.

The house is located in a rural area on the south side of Ecella Road. It is set back roughly fifty feet from the road and is situated in the center of a grassy yard. Shade trees grow around the house in the surrounding yard. A gravel driveway leads from the road and terminates behind the house in front of a garage, which stands to the southwest. To the immediate east of the garage is a small, log outbuilding. In the backyard, a trailer stands behind the house to the southeast. The property is bordered by an agricultural field on three sides.

This property is an example of a typical early-twentieth century, Vernacular-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2009. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5307
Commercial Granary, 22000 Barrett Town Road



This office building, located at 22000 Barrett Town Road, was constructed in 1938, according to local land records. The building is a one-story, three-bay, Vernacular-style office with a rectangular form. A one-bay addition is located along the south elevation. Its structural framework is wood frame, clad in board and batten siding, and it rests atop a continuous foundation. The front-gable roof is covered with standing-seam metal and has exposed rafters. The main entrance was not visible from the public right-of-way. Fenestration consists of two-over-two, double-hung sash windows. A side entrance is located along the east elevation of the addition.

The office building is located in a rural area on the west side of Barrett Town Road. It is set back roughly one hundred feet from the road and sits at the eastern edge of a farm complex. The complex consists of an office and eighteen agricultural outbuildings situated in a grassy yard. A gravel driveway leads from the road and passes through the work yard. The yard is bordered by agricultural fields on all sides. A small pond is situated beside the office to the east. The property is bordered by other farms to the north and south.

This property is an example of a typical mid-twentieth century agricultural complex located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2009. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5501
House, 9108 Cut Thru Road



This single-family dwelling, located at 9108 Cut Thru Road, was constructed in 1942, according to local land records. The building is a one-story, three-bay, Vernacular-style house with a rectangular form. Its structural system is wood frame, clad in asbestos shingles, and it rests atop a continuous, brick foundation. The roof is side-gabled and is covered with asphalt shingles. An interior-central, brick chimney pierces the roof. On the primary façade (north elevation), the main entrance was not visible due to tall vegetation. Fenestration consists of two-over-two, double-hung sash windows. The house is vacant and in poor condition.

The house is located in a rural area on the south side of Cut Thru Road. It is set back roughly fifty feet from the road. The house is surrounded by trees and tall vegetation on all sides. A gravel driveway leads from the road and terminates beside the house to the east. The yard is bordered by an agricultural field to the south and west. To the west of the house in the side yard is a small privy. A barn stands behind the house to the south. The property is bordered by an open field to the east and by residential properties to the west.

This property is an example of a typical early-twentieth century, Vernacular-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. The resource was previously determined not eligible for listing in the NRHP by the VDHR in 2014. At this time, D+A recommends that the resource continue to be considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5664
House, 7346 Yellow Hammer Road



This single-family dwelling, located at 7346 Yellow Hammer Road, was constructed in 1952, according to local land records. The building is a one-and-a-half-story, four-bay, Minimal Traditional-style house with a rectangular form. Its structural system is wood frame, clad in vinyl weatherboards, and it rests atop a continuous, concrete block foundation. The roof is cross-gabled and is covered with asphalt shingles. On the primary façade (north elevation), the main entrance consists of an off-centered door, sheltered by a partial-width porch. The shed porch roof is supported by wooden posts that rest atop a wooden deck. Fenestration consists of six-over-six, double-hung sash windows, which are accompanied by faux shutters. In terms of ornamentation, the shutters, window and door frames, porch, foundation, and roof eaves are painted brown.

The house is located in a rural area on the south side of Yellow Hammer Road. It is set back roughly thirty feet from the road and sits in the center of a grassy yard, which is bordered by woods on all sides. A gravel driveway leads from the road, branches off in front of the house, and terminates on each side of the house to the east and west. A carport stands beside the house to the west. In the backyard, a gazebo stands behind the house to the south.

This property is an example of a typical mid-twentieth century, Minimal Traditional-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5668
House, 7297 Yellow Hammer Road



This single-family dwelling, located at 7297 Yellow Hammer Road, was constructed in 1925, according to local land records. The building is a one-story, three-bay, Vernacular-style house with a rectangular form. Its structural system is wood frame, clad in wooden, board and batten siding, and it rests atop concrete piers. The roof is side-gabled and is covered with standing-seam metal. An interior-end, concrete chimney flue pierces the roof peak. On the primary façade (south elevation), the main entrance consists of a central door, sheltered by a slight roof overhang and accessed by a single, concrete step. Fenestration consists of six-over-six, double-hung sash windows. The house is simple in design and has no additional ornamentation. It appears to be vacant.

The house is located in a rural area on the north side of Yellow Hammer Road. It is set back roughly thirty feet from the road and sits at the western end of a grassy clearing. The clearing is surrounding by woods on three sides. Trees grow around the house in the surrounding yard. A well stands in front of the house to the southeast. The property appears to be vacant, although at the time of the survey the house was in fair condition and the surrounding yard was well-maintained.

This property is an example of a typical early-twentieth century, Vernacular-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5669
House, 7246 Yellow Hammer Road



This single-family dwelling, located at 7246 Yellow Hammer Road, was constructed in 1958, according to local land records. The building is a one-story, four-bay, Ranch-style house with a rectangular form. Its structural system is wood frame, clad in vinyl weatherboards, and it rests atop a continuous, concrete foundation. The roof is cross-gabled and is covered with asphalt shingles. On the primary façade (north elevation), the main entrance consists of an off-centered door, sheltered by a partial-width porch. The shed porch roof is supported by wooden posts that rest atop a wooden deck. Fenestration consists of one-over-one, double-hung sash windows, which are accompanied by faux shutters. The house is simple in design and has no additional ornamentation.

The house is located in a rural area on the south side of Yellow Hammer Road. It is set back roughly fifty feet from the road and sits in the center of a grassy yard. Shrubs grow around the house in the surrounding yard. A gravel driveway leads from the road and terminates beside the house to the west; the driveway also provides access to the neighboring property. A barn stands behind the house to the south. A fenced-in pasture stands directly behind the barn. The property is bordered by residential properties to the east and west.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5670
House, 7230 Yellow Hammer Road



This single-family dwelling, located at 7230 Yellow Hammer Road, was constructed in 1959, according to local land records. The building is a one-story, four-bay, Ranch-style house with a rectangular form. Its structural system is wood frame, clad in composite siding, and it rests atop a continuous, concrete foundation. The roof is hipped and is covered with asphalt shingles. An interior-central, brick chimney pierces the roof. On the primary façade (north elevation), the main entrance consists of an off-centered door, sheltered by a partial roof overhang and accessed by a wooden stoop. Fenestration consists of two-over-two, double-hung sash windows, which are accompanied by faux shutters. In terms of ornamentation, the house has two picture windows on the front elevation and a typical, Mid-Century front door.

The house is located in a rural area on the south side of Yellow Hammer Road. It is set back roughly fifty feet from the road and sits in the center of a grassy yard. Small trees and foundation plantings grow around the house in the surrounding yard. A shared, gravel driveway leads from t the road and terminates beside the house to the east; the driveway also provides access to the neighboring house. Two sheds stand behind the house to the southeast. The property is bordered by a residential property to the east and by Deerfield Drive to the west.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5671
Farm, 7431 Deerfield Drive



This house, located at 7431 Deerfield Drive, was constructed circa 1850, according to site inspection. The building is a two-story, three-bay, Vernacular-style farmhouse with an I-house form. The structural framework is wood frame, clad in weatherboards, and it rests atop a continuous, brick foundation. The roof is side-gabled and is covered with standing-seam metal. An exterior-end, brick chimney pierces the roof peak on each side of the house. On the primary façade (south elevation), the main entrance consists of a central door, sheltered by a partial-width, screened-in porch. The porch has a hipped roof, covered with asphalt shingles, and a central, screen door provides access to the interior space. Fenestration consists of one-over-one, double-hung sash windows, which are accompanied by faux shutters. The house is simple in design and has no additional ornamentation.

The house is located in a rural area at the end of Deerfield Drive. A long, gravel driveway leads from the road in an east-west direction and continues for roughly one quarter of a mile, at which point it bends to the north. From there, the driveway continues northward for roughly four hundred feet before terminating in front of the house, which faces to the south. The house sits in the center of a grassy yard, which is surrounded by agricultural fields on all sides. Eight domestic and agricultural outbuildings are situated along the driveway to the south of the house. Closer to Deerfield Drive, a quarter and large outbuilding stand along the driveway to the south, roughly six hundred feet from the entrance to the property. The fields are bordered by a tree line on all sides. To the north of the property on the opposite side of the tree line is a group of residential properties as well as woods. To the south, east, and west of the property are additional patches of woods and fields.

According to a survey conducted by the Works Progress Administration in 1937, the present house was constructed in 1894 by Civil War veteran Mills Valentine Bracey. The house is located on the site of an earlier, brick dwelling, constructed in 1787 by Edwin Grey. During the early nineteenth century, Grey sold his home and farm to Exum Bracey. Bracey lived in the house with his wife,

Dowdy, and their son, Mills Valentine Bracey through the mid-nineteenth century. The Bracey home appeared on Civil War-era maps of Isle of Wight. During Exum Bracey's ownership of the property, enslaved workers cultivated the surrounding farmland. A kitchen-quarter remains standing on the property today, as well as other historic outbuildings from the nineteenth century.

When war broke out in 1861, Mills Bracey, who was seventeen at the time, joined Company D of the 16th Virginia Infantry Regiment. He was wounded at the Battle of the Wilderness in May of 1864 and was transported to Chimborazo Hospital in Richmond, the largest Confederate hospital during the war. After he was released from the hospital a month later, he continued to fight in the Confederate Army until the end of the war in April of 1865. At that time, he returned to his family's home in Isle of Wight. Sometime during the 1860s, the property passed to Mills following his father's death, although the specific date is unknown. In 1894, Mills tore down the original house and constructed the present house on its site. He lived in the house until his death in 1922, at which time the property passed to his son, Robert Bracey. At the time of the 1937 survey, Robert's daughter, Ora Bracey Parr, owned the property.

This property represents a typical, late-nineteenth century, Vernacular-style, I-house within the region. The property and possibly several outbuildings and other features, however, may be remnants of the earlier development of the property that can be documented as early as 1787. While the property and resources present warrant further study and evaluation to determine historical associations and significance, it will be treated as ***potentially eligible*** for listing in the NRHP for the purposes of this effort.

As a potentially NRHP-eligible resource within the survey area, an assessment of potential impacts brought about by the project is necessary. While project details including site plan, array layout, and vegetative screening are still under development, this resource is not located directly within the project area and therefore an assessment of potential visual impacts was conducted at this time.

To assess whether the project may pose a visual impact to the resource, a viewshed assessment was conducted from public ROW in the vicinity of the property. Inspection was performed and photographs towards the project area taken to document existing visibility and surrounding setting.

Improvements related to the Carver Solar project are proposed to take place within the landscape to the south (front/side) of the 7431 Deerfield Drive property. Although the project area property immediately abuts the edge of the property, the house sits far back from that edge of the large parcel, approximately 0.31 mile away at its nearest point. The landscape between the house and the project area is a mix of agricultural field, timber stand, and native woodland. The home itself is surrounded by agricultural field that extends roughly 0.1 mile to the front of the house and ends at the driveway. Across the driveway, occupying the remaining 0.3 mile between the it and the project area is a large pine timber stand. According to review of aerial photography, this stand was last harvested in 2019 and has now regrown with a mix of young pine and brush. Along the edge of the property that is shared with the project area is a narrow strip of native woodland and vegetation bordering Burnt Mills Swamp and a tributary creek.

Inspection from the road leading into the property found that the existing vegetation within the timber stand and bordering Burnt Mill Swamp completely screens views in the direction of the project area and will inhibit visibility of the project improvements. Although much of landscape

of the property between the house and the project area is planted timber, and it is acknowledged that it may periodically be harvested, the wide wooded area bordering the swamp is not suitable for agriculture or timber, and where therefore likely remain in place as screening. Regardless of vegetation patterns on this property, the swamp and surrounding woodland also extend well into the project area and will be avoided and not cleared as part of the project. As such, it is anticipated that the project area and associated improvements will continue to be screened from the property and the project is therefore not anticipated to introduce any noticeable change in the setting or viewshed of or from the property. For these reasons, it is D+A's recommendation that the Carver Solar Project will pose no more than a ***minimal impact*** to the farm at 7431 Deerfield Drive.

Figure 6-19 illustrates the location of the project area in relation to the farm at 7431 Deerfield Drive, along with the location and direction of representative photography. Figures 6-20 through 6-22 provide representative photography of and from the property towards the project area. Figure 6-23 provides a detail of the conceptual site plan in the vicinity of the resource.

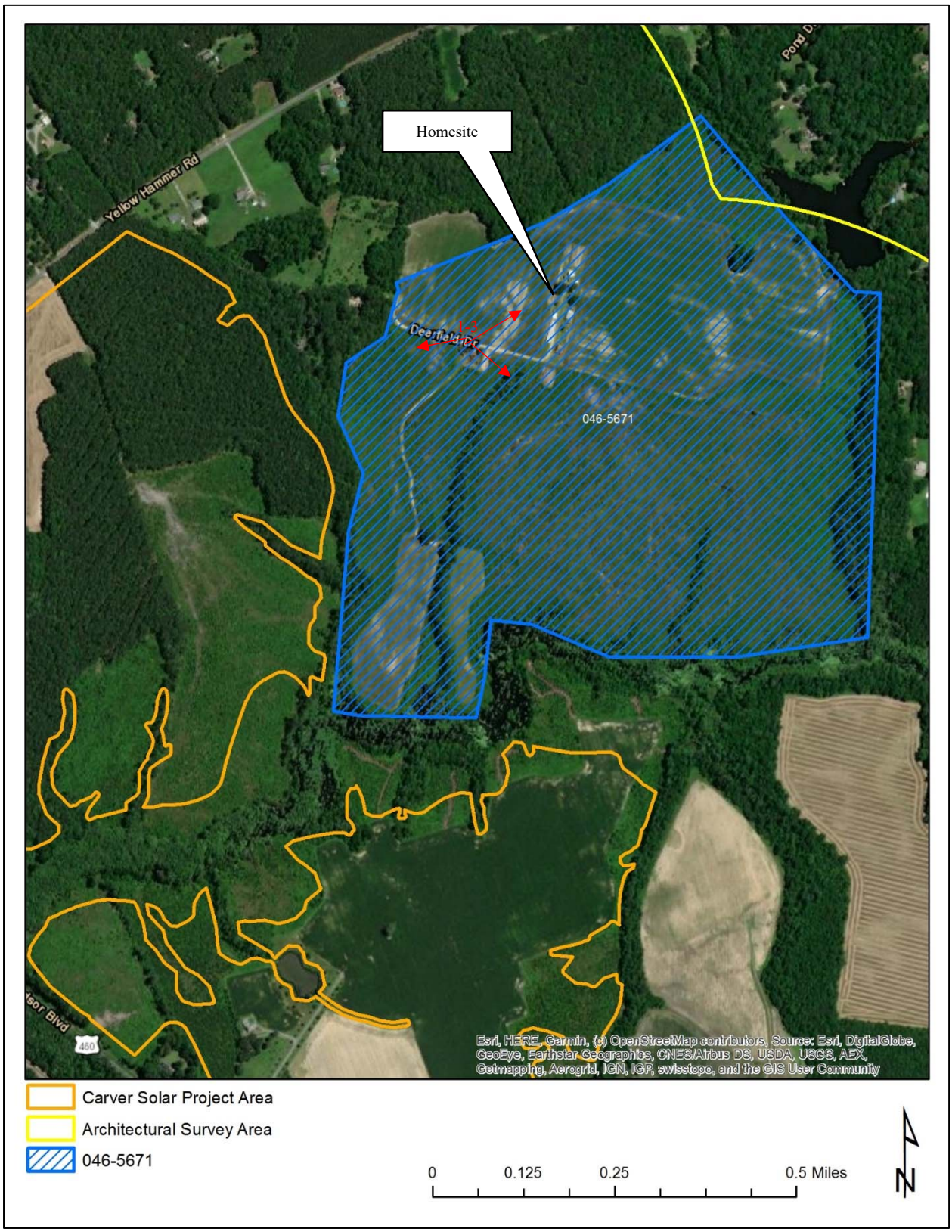


Figure 6-19: Farm at 7431 Deerfield Drive in relation to the project area with locations and directions of representative photographs.



Figure 6-20: View 1 - Farm at 7431 Deerfield Drive setting as viewed from Deerfield Drive, facing northeast.



Figure 6-21: View 2 – View from Deerfield Drive within the resource property towards the project area (not visible – screened by vegetation), facing southeast.



Figure 6-22: View 3 – View from Deerfield Drive within the resource property towards the project area (not visible – screened by vegetation), facing southeast.

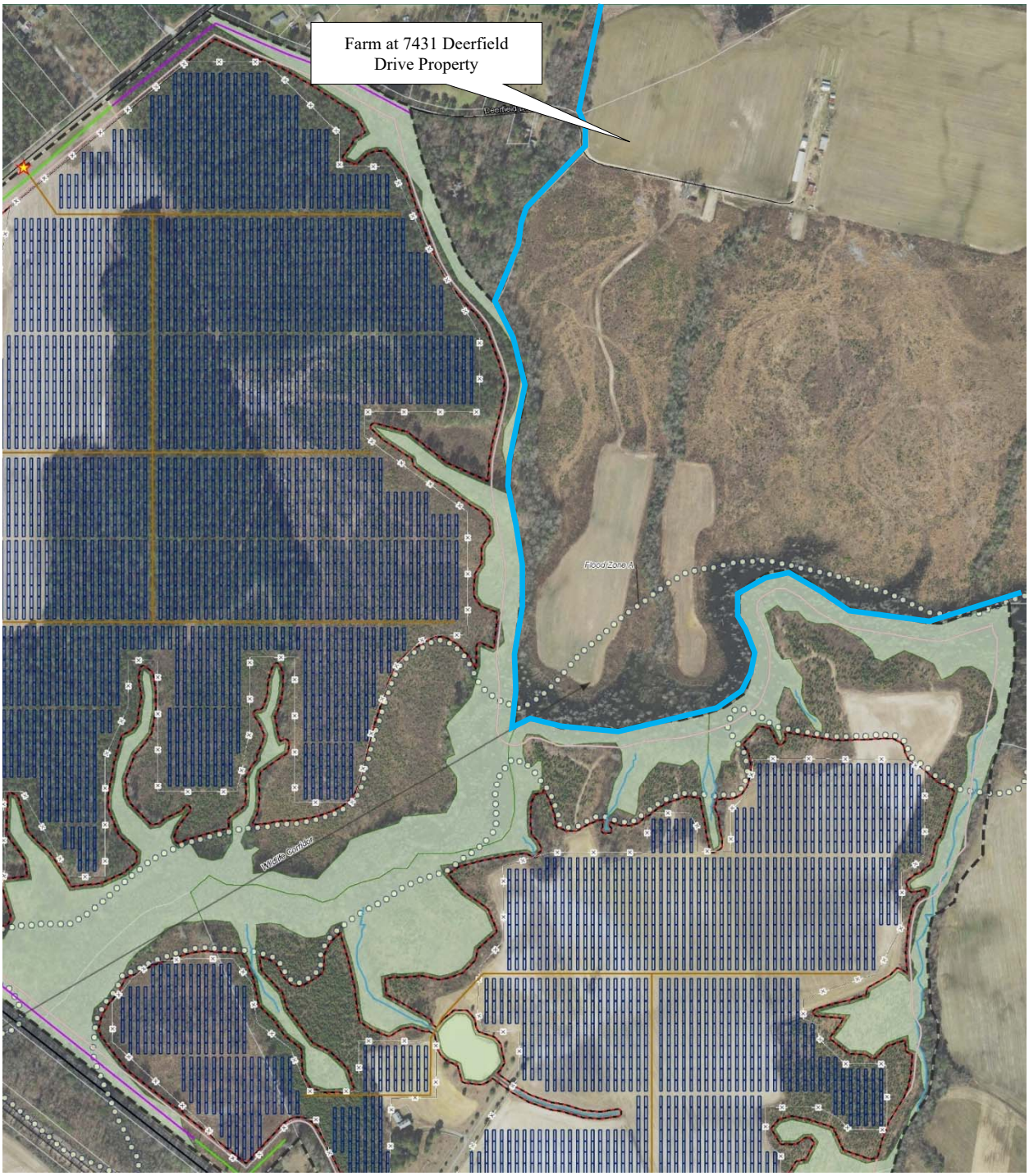


Figure 6-23: Conceptual site plan in the vicinity of the farm at 7431 Deerfield Drive. Source: Timmons Group

VDHR# 046-5672
House, 7296 Deerfield Drive



This single-family dwelling, located at 7296 Deerfield Drive, was constructed in 1939, according to local land records. The building is a one-story, four-bay, Vernacular-style house with a rectangular form. Its structural system is concrete block, and it rests atop a continuous, concrete block foundation. The roof is side-gabled and is covered with asphalt shingles. An interior-central, metal chimney flue pierces the roof. On the primary façade (north elevation), the main entrance consists of an off-centered door, sheltered by a full-width porch. The porch roof is supported by metal posts. Fenestration consists of one-over-one, double-hung sash windows, which are accompanied by faux shutters. The house is simple in design and has no additional ornamentation.

The house is located in a rural area on the south side of Deerfield Drive. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. Two trees grow in the front yard, which is enclosed by a wooden fence. A gravel driveway leads from the road and terminates beside the house to the east in front of a garage. The property is surrounded by woods on three sides.

This property is an example of a typical early-twentieth century, Vernacular-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5673
House, 7268 Deerfield Drive



This single-family dwelling, located at 7268 Deerfield Drive, was constructed in 1962, according to local land records. The building is a one-story, small house with a rectangular form and no discernible style. Its structural system is wood frame, clad in wood weatherboards. The roof is side-gabled and is covered with standing-seam metal. Along the west elevation, the main entrance consists of a central doorway with a recessed bay. The windows are covered with wood shutters. The house is simple in design and unornamented.

The property is situated on the south side of Deerfield Drive and is primarily wooded. The home is set near the road along the side of a dirt driveway. A variety of ornamental landscaping is mixed into the native woodland around the building. The driveway continues into the property and leads to a larger, modern dwelling. Further beyond the modern dwelling is a large, historic barn.

This resource is an example of a typical, late-twentieth century dwelling with no discernible style located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5674
House, 6250 Yellow Hammer Road



This single-family dwelling, located at 6250 Yellow Hammer Road, was constructed in 1958, according to local land records. The building is a one-story, four-bay, Ranch-style house with an L-shaped form. Its structural system is brick, laid in a running bond, and it rests atop a continuous, brick foundation. The roof is hipped and is covered with asphalt shingles. Two interior-central, metal chimney flues pierce the roof. On the primary façade (north elevation), the main entrance consists of an off-centered door, sheltered by a slight roof overhang and accessed by a brick stoop. Fenestration consists of two-over-two, double-hung sash windows, which are accompanied by faux shutters. In terms of ornamentation, the house has a picture window along the front elevation.

The house is located in a rural area on the south side of Yellow Hammer Road. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. An asphalt driveway leads from the road and loops in front of the house to the north. No outbuildings were observed. The property is bordered by a residential property to the east and by woods to the west and south.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5675
House, 6278 Yellow Hammer Road



This single-family dwelling, located at 6278 Yellow Hammer Road, was constructed in 1958, according to local land records. The building is a one-story, four-bay, Vernacular-style house with a rectangular form. The house consists of a three-bay, main block with a one-bay wing along the east elevation. Its structural system is wood frame, clad in vinyl weatherboards, and it rests atop a continuous, poured concrete foundation. The roof is side-gabled and is covered with asphalt shingles. An interior-central, concrete chimney flue pierces the roof. Additionally, an exterior-end, concrete block chimney pierces the roof peak along the eastern elevation of the wing. On the primary façade (north elevation), the main entrance consists of an off-centered door, sheltered by a partial-width, screened-in porch. Fenestration consists of one-over-one, double-hung sash windows, which are accompanied by faux shutters. The house is simple in design and has no additional ornamentation.

The house is located in a rural area on the south side of Yellow Hammer Road. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. The front yard is enclosed by a wire fence. A gravel driveway leads from the road and terminates beside the house to the west. Three sheds stand behind the house to the south. In the side yard, a trailer is located beside the house to the west. The property is bordered by a residential property to the west and by woods to the east and south.

This property is an example of a typical mid-twentieth century, Vernacular-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5676
House, 8072 Winston Drive



This single-family dwelling, located at 8072 Winston Drive, was constructed in 1962, according to local land records. The building is a one-story, five-bay, Ranch-style house with a rectangular form. The house consists of a three-bay, main block with a one-bay wing along the west elevation and a one-bay sunroom along the east elevation. Its structural system is wood frame, clad in vinyl weatherboards, and it rests atop a continuous, poured concrete foundation. The roof is hipped and is covered with asphalt shingles. Two interior-slope, brick chimneys pierce the roof. On the primary façade (north elevation), the main entrance consists of an off-centered door, sheltered by a slight roof overhang and accessed by concrete steps. Fenestration consists of two-over-two, double-hung sash windows. In terms of ornamentation, the house has a picture window along the front elevation. Additionally, the siding is painted yellow.

The house is located in a rural area on the south side of Winston Drive. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. A large tree grows in front of the house to the north. A gravel driveway leads from the road and terminates beside the house to the east in front of a garage. A shed stands behind the garage to the south. In the front yard, a well stands beside the house to the northeast. The property is bordered by residential properties to the west and by woods to the east and south.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5677
House, 9071 Cut Thru Road



This single-family dwelling, located at 9071 Cut Thru Road, was constructed in 1969, according to local land records. The building is a one-story, three-bay, Minimal Traditional-style house with a rectangular form. Its structural system is brick, laid in a running bond, and it rests atop a continuous, brick foundation. The roof is cross-gabled and is covered with asphalt shingles. An interior-central, brick chimney pierces the roof peak. On the primary façade (south elevation), the main entrance consists of an off-centered door that is inset slightly into the front wall and accessed by brick steps. Fenestration consists of six-over-six and four-over-four, double-hung sash windows. In terms of ornamentation, the house has two picture windows on the front elevation. Additionally, the walls flanking the inset front door are clad in vinyl weatherboards. The door surround is topped by a brick arch.

The house is located in a rural area on the north side of Cut Thru Road at its intersection with Winston Drive. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. A gravel driveway leads from the road and terminates beside the house to the west in front of a garage. In the backyard to the north, a carport and two sheds stand behind the house. The property is bordered by a residential property to the east and by Winston Drive to the west.

This property is an example of a typical mid-twentieth century, Minimal Traditional-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5678
House, 22038 Garrison Drive



This single-family dwelling, located at 22038 Garrison Drive, was constructed in 1969, according to local land records. The building is a one-story, three-bay, Ranch-style house with a rectangular form. The house has a one-bay, attached garage along the north elevation. Its structural system is wood frame, clad in vinyl weatherboards, and it rests atop a continuous, brick foundation. The roof is side-gabled and is covered with asphalt shingles. An interior-end, brick chimney pierces the roof peak. On the primary façade (east elevation), the main entrance consists of an off-centered door, sheltered by a partial-width, engaged porch. The overhang is supported by two vinyl posts. Fenestration consists of eight-over-eight, double-hung sash windows, which are accompanied by faux shutters. The house is simple in design and has no additional ornamentation.

The house is located in a rural area on the west side of Garrison Drive. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. A gravel driveway leads from the road and terminates in front of the garage to the east. Foundation plantings grow along the front of the house. No outbuildings were observed. The property is bordered by residential properties to the north and south.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5679
House, 22004 Garrison Drive



This single-family dwelling, located at 22004 Garrison Drive, was constructed in 1970, according to local land records. The building is a one-story, four-bay, Ranch-style house with a rectangular form. The original portion of the house has a large, two-story addition leading from the west elevation of the house. The structural system of the house is wood frame, clad in vertical wood boards, and it rests atop a continuous foundation. The roof of the original portion of the house is hipped and the roof of the addition is front-gabled; both roofs are covered with asphalt shingles. On the primary façade (east elevation), the main entrance consists of an off-centered door, sheltered by a one-bay, roof overhang. The overhang is supported by what appears to be wooden posts that rest atop a wooden deck. Fenestration consists of six-over-six, double-hung sash windows, which are accompanied by faux shutters. The house is simple in design and has no additional ornamentation.

The house is located in a rural area on the west side of Garrison Drive. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. A large number of trees grow around the house on all sides. A gravel driveway leads from the house and terminates beside the house to the north. A large outbuilding stands behind the house to the west. The property is bordered by residential properties to the north and south.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5680
House, 21296 Garrison Drive



This single-family dwelling, located at 21296 Garrison Drive, was constructed in 1962, according to local land records. The building is a one-story, five-bay, Ranch-style house with a rectangular form. The southernmost bay of the house consists of an enclosed sunroom. Its structural system is brick, laid in a running bond, and it rests atop a continuous, brick foundation. The roof is hipped and is covered with asphalt shingles. An interior-slope, brick chimney pierces the roof. On the primary façade (east elevation), the main entrance consists of a central door, sheltered by a slight roof overhang and accessed by concrete stairs. Fenestration consists of two-over-two, double-hung sash windows. In terms of ornamentation, the house has a large picture window along the front elevation.

The house is located in a rural area on the west side of Garrison Drive. It is set back roughly seventy feet from the road and sits in the center of a grassy yard, which is bordered by a thin tree line on three sides. A gravel driveway leads from the road and terminates in front of the house to the east. The yard is bordered by agricultural fields to the north, west, and south. An outbuilding is located in the backyard to the west. Additionally, three outbuildings are located in the surrounding tree line to the north and southeast. The property is bordered by two residential properties to the south and west, and by woods to the north.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5681
House, 21416 Garrison Drive



This single-family dwelling, located at 21416 Garrison Drive, was constructed in 1908, according to local land records. The building is a two-story, three-bay, Vernacular-style house with an I-house form. Its structural system is wood frame, clad in vinyl weatherboards, and it rests atop a continuous, concrete foundation. The roof is side-gabled and is covered with standing-seam metal. An exterior-end, brick chimney pierces the roof peak. On the primary façade (east elevation), the main entrance consists of a central door, sheltered by a partial-width porch. The hipped porch roof is supported by what appears to be wood posts that rest atop a wood deck. Fenestration consists of six-over-six, double-hung sash windows, accompanied by faux shutters. The house is simple in design and has no additional ornamentation.

The house is located in a rural area on the west side of Garrison Drive. It is set back roughly two hundred feet from the road and sits in the center of a grassy yard. A gravel driveway leads from the road and terminates beside the house to the north. The yard is bordered by agricultural fields on all sides. Behind the house to the west, a garage, well house, gazebo, and shed stand in the back yard. Further to the east, a carport stands in the front field. The property is bordered by residential properties to the north and south.

This property is an example of a typical early-twentieth century, Vernacular-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5682
House, 7334 Ecella Road



This single-family dwelling, located at 7334 Ecella Road, was constructed in 1966, according to local land records. The building is a one-story, three-bay, Ranch-style house with a rectangular form. Its structural system is wood frame, clad in vinyl weatherboards, and it rests atop a continuous, concrete block foundation. The roof is side-gabled and is covered with asphalt shingles. An interior-slope, brick chimney pierces the roof. On the primary façade (north elevation), the main entrance consists of an off-centered door, sheltered by a slight roof overhang and accessed by a concrete block stoop. Fenestration consists of two-over-two, double-hung sash windows, which are accompanied by faux shutters on the front elevation. In terms of ornamentation, the house has a large picture window along the front elevation.

The house is located in a rural area on the south side of Ecella Road. It is set back roughly thirty feet from the road and is situated in the center of a grassy yard. Mature shade trees grow around the house in the surrounding yard. No outbuildings were observed. The property is bordered by woods and open fields on three sides. The house is located at the eastern end of Ecella Road at its intersection with the Norfolk Southern Railroad.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5683
House, 7295 Ecella Road



This single-family dwelling, located at 7295 Ecella Road, was constructed in 1969, according to local land records. The building is a one-story, four-bay, Ranch-style house with a rectangular form. Numerous additions have been made to the house over time. Its structural system is wood frame, clad in vinyl weatherboards, and it rests atop a continuous, concrete foundation. The original portion of the roof is hipped and is covered with asphalt shingles. An interior-slope, metal chimney flue pierces the roof. On the primary façade (south elevation), the main entrance consists of an off-centered door that is inset into the front wall and accessed by concrete stairs. Fenestration consists of one-over-one, double-hung sash windows. In terms of ornamentation, the house has a large, bay window along the front elevation.

The house is located in a rural area on the north side of Ecella Road. It is set back roughly thirty feet from the road and is situated in the center of a grassy yard. A gravel driveway leads from the road and terminates beside the house to the east. A large shed stands behind the house to the north. The property is bordered by residential properties to the west and by the Norfolk Southern Railroad to the east.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5684
House, 22150 Barrett Town Road



This single-family dwelling, located at 22150 Barrett Town Road, was constructed in 1962, according to local land records. The building is a one-story, five-bay, Ranch-style house with a rectangular form. The northernmost bay consists of a one-bay, attached garage. Its structural system is brick, laid in a running bond, it rests atop a continuous, brick foundation. The roof is cross-gabled and is covered with asphalt shingles. An interior-slope, brick chimney pierces the roof. On the primary façade (east elevation), the main entrance consists of an off-centered door that is inset into the front wall and accessed by brick stairs. Fenestration consists of one-over-one, double-hung sash windows, accompanied by faux shutters on the front elevation. In terms of ornamentation, the house has a large picture window.

The house is located in a rural area on the west side of Barrett Town Road. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. A gravel driveway leads from the road and each side of the house and terminates along the north and south elevations. A large outbuilding and shed stand behind the house to the west.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5685
House, 22288 Barrett Town Road



This single-family dwelling, located at 22288 Barrett Town Road, was constructed in 1967, according to local land records. The building is a one-story, four-bay, Ranch-style house with a rectangular form. A two-bay attached carport with located along the south elevation. Its structural system is brick, laid in a running bond, it rests atop a continuous, brick foundation. The roof is side-gabled and is covered with asphalt shingles. On the primary façade (east elevation), the main entrance consists of an off-centered door, sheltered by a partial-width porch. The porch roof is supported by turned wood posts. Fenestration consists of six-over-six, double-hung sash windows, accompanied by faux shutters. The house is simple in design and has no additional ornamentation.

The house is located in a rural area on the west side of Barrett Town Road. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. Foundation plantings grow along the front of the house. An asphalt driveway leads from the road and terminates in front of the carport to the east. The space underneath the carport is paved with concrete. A shed stands behind the house to the west. The property is bordered by a residential property to the south and by woods to the west and north.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5686
House, 22310 Barrett Town Road



This single-family dwelling, located at 22310 Barrett Town Road, was constructed in 1942, according to local land records. The building is a one-story, five-bay, Ranch-style house with a rectangular form. Its structural system is wood frame, clad in vinyl weatherboards, and it rests atop a continuous, concrete block foundation. The roof is side-gabled and is covered with standing-seam metal. An exterior-end, concrete block chimney pierces the roof. On the primary façade (east elevation), the main entrance consists of an off-centered door, sheltered by a slight roof overhang and accessed by concrete steps. Fenestration consists of one-over-one, double-hung sash windows, sheltered by metal awnings. The house is simple in design and has no additional ornamentation.

The house is located in a rural area on the west side of Barrett Town Road. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. A dirt driveway leads from the road and loops around the house to the west. In the backyard, two shed and a well house stand to the west of the house. The property is bordered by residential properties to the north and south.

This property is an example of a typical early-to-mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5687
House, 22392 Barrett Town Road



This single-family dwelling, located at 22392 Barrett Town Road, was constructed in 1967, according to local land records. The building is a one-story, seven-bay, Ranch-style house with a rectangular form. The house consists of a four-bay main block with a three-bay, addition along the south elevation of the original block and a one-bay, attached carport along the south elevation of the addition. Its structural system is brick, laid in a running bond, and it rests atop a continuous, brick foundation. The roof is cross-gabled and is covered with asphalt shingles. An interior-slope, brick chimney pierces the roof. On the primary façade (east elevation), the main entrance consists of an off-centered door, sheltered by a one-bay, entry porch and accessed by a brick stoop. A secondary entrance is centered along the side addition. Fenestration consists of six-over-six, double-hung sash windows, accompanied by faux shutters. In terms of ornamentation, the house has a large picture window along the front elevation.

The house is located in a rural area on the west side of Barrett Town Road at its intersection with Mill Creek Drive. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. A gravel driveway leads from the road, loops behind the house to the west, and intersects with Mill Creek Drive to the north. Two sheds, an outbuilding, and a carport stand behind the house to the southwest. The property is bordered by residential properties to the south and by Mill Creek Drive to the north.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5688
House, 21260 Leander Lane



This single-family dwelling, located at 21260 Leander Lane, was constructed circa 1900, according to site inspection. The building is a two-story, three-bay, Vernacular-style farmhouse with an I-house form and subtle Folk Victorian influences. Its structural system is wood frame, clad in composite siding, and it rests atop a continuous, brick foundation. The roof is side-gabled and is covered with standing-seam metal. An exterior-end, brick chimney pierces the roof peak. On the primary façade (south elevation), the main entrance consists of a central door, sheltered by a partial-width porch. The hipped porch roof is supported by turned wood posts that rest atop a wood deck. Fenestration consists of six-over-six and two-over-two, double-hung sash windows. In terms of ornamentation, the porch features subtle Folk Victorian stylistic details such as decorative bargeboard and turned wood posts.

The house is located in a rural area at the end of Leander Lane, which intersects with Winston Drive to the south. It is set back roughly one-half mile from the road and sits in the center of a grassy yard. Shade trees grow around the house in the surrounding yard. The yard is surrounded by agricultural fields on all sides, which are bordered by thick woods to the north, west, and south. A long, gravel driveway leads from Winston Drive and terminates in front of the house to the south. The house is accompanied by a well, three silos, and a large outbuilding, which stand behind the house to the north. Additionally, a shed and outbuilding stand beside the house to the east. The property is bordered by woods and open fields to the north, east, and west, and by residential properties along Winston Drive to the south.

This property is an example of a typical turn-of-the-century, Vernacular-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5689
House, 8115 Windsor Boulevard



This single-family dwelling, located at 8115 Windsor Boulevard, was constructed in 1963, according to local land records. The building is a one-story, five-bay, Ranch-style house with a rectangular form. The house consists of a five-bay block with a one-bay, attached carport. Its structural system is brick, laid in a running bond, and it rests atop a continuous, brick foundation. The roof is hipped and is covered with asphalt shingles. An interior-slope, brick chimney pierces the roof. On the primary façade (south elevation), the main entrance consists of a central door that is slightly inset into the wall and accessed by a brick stoop. A garage door flanks the front door to the right. Fenestration consists of two-over-two, double-hung sash windows, accompanied by faux shutters. In terms of ornamentation, the house has a large picture window on the front elevation.

The house is located in a rural area on the north side of Windsor Boulevard. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. The yard is bordered by woods to the north and west. A residential property borders the house to the east. A concrete driveway leads from the road and terminates underneath the attached carport. Foundation plantings and shrubs grow around the house. A shed stands behind the house to the north.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5690
House, 8089 Windsor Boulevard



This single-family dwelling, located at 8089 Windsor Boulevard, was constructed in 1969, according to local land records. The building is a one-story, five-bay, Ranch-style house with a rectangular form. Its structural system is brick, laid in a running bond, and it rests atop a continuous, brick foundation. The roof is hipped and is covered with asphalt shingles. On the primary façade (south elevation), the main entrance consists of an off-centered door that is slightly inset into the wall and accessed by a brick stoop. Fenestration consists of one-over-one, double-hung sash windows, accompanied by faux shutters. In terms of ornamentation, the house has three converging rooflines.

The house is located in a rural area on the north side of Windsor Boulevard. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. Trees grow around the house on all sides. Additionally, foundation plantings front the house to the south. A gravel driveway leads from the road and loops behind the house to the north. No outbuildings were observed. The property is bordered by a residential property to the east and by woods to the north and west.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5691
House, 7570 Windsor Boulevard



This single-family dwelling, located at 7570 Windsor Boulevard, was constructed in 1962, according to local land records. The building is a one-story, six-bay, Ranch-style house with a rectangular form. Its structural system is brick, laid in a running bond, and it rests atop a continuous, brick foundation. The roof is hipped and is covered with asphalt shingles. An exterior-central and interior-slope brick chimneys pierce the roof. On the primary façade (north elevation), the main entrance consists of an off-centered door that is sheltered by a one-bay, entry porch. The hipped porch roof is supported by vinyl posts. Fenestration consists of one-over-one, double-hung sash windows, accompanied by faux shutters. In terms of ornamentation, the house has a picture window along the front elevation.

The house is located in a rural area on the south side of Windsor Boulevard. It is set back roughly thirty feet from the road and sits in the center of a grassy yard. Shade trees grow around the house in the surrounding yard. An asphalt driveway leads from the road and terminates beside the house to the west. The backyard is enclosed with a wooden fence. No outbuildings were observed. The property is bordered by residential properties to the east and west.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5692
Southern States, 9242 Windsor Boulevard



This service station, located at 9242 Windsor Boulevard, was constructed in 1971, according to local land records. The building is a one-story, five-bay, commercial building with a rectangular form and no discernible style. The structural system of the building is concrete block, clad in brick on the front elevation, and it rests atop a continuous, concrete block foundation. The roof is flat and is covered with asphalt roofing. On the primary façade (north elevation), the main entrance consists of an off-centered, glass door sheltered by a metal awning. Fenestration consists of single-light, fixed commercial windows. In terms of ornamentation, a portion of the front façade is clad in vertical boards while the remainder of the wall is clad in brick veneer. Additionally, the front door is flanked by a large sidelight and topped by a transom. The building also has two large signs that include the name of the store.

The store is located in a rural area on the south side of Windsor Boulevard. It is set back roughly fifty feet from the road and sits in the center of a small, grassy yard. An asphalt parking lot and staging area surround the building on all sides. Additionally, an asphalt driveway leads from the road into the parking area. To the east of the building are two gas pumps and a system of pipes, each of which are covered by a shelter. Two additional gas pumps front the building to the north but are not covered by a shelter. To the south of the shelters is a shed. On the opposite side of the store to the west is a carport that provides shelter over a propane tank. The store is bordered by residential properties to the east and west and by the Norfolk Southern Railroad to the south.

This property is an example of a typical mid-twentieth century roadside service station located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5693
House, 9141 Windsor Boulevard



This single-family dwelling, located at 9141 Windsor Boulevard, was constructed in 1968, according to local land records. The building is a one-story, eight-bay, Ranch-style house with a rectangular form. The easternmost bay of the house consists of an attached garage. Its structural system is brick, laid in a running bond, and it rests atop a continuous, brick foundation. The roof is side-gabled and is covered with asphalt shingles. An interior-slope, brick chimney pierces the roof. Additionally, an interior-central, frame cupola pierces the roof peak. On the primary façade (south elevation), the main entrance consists of a central door, sheltered by a partial-width porch. The porch overhang is supported by wood posts that rest atop a brick base. Fenestration consists of eight-over-twelve- double-hung sash windows. In terms of ornamentation, the front door is accompanied by a molder door surround topped by a broken ogee pediment. Additionally, two of the windows on opposite sides of the door are topped by arched pediments.

The house is located in a rural area on the north side of Windsor Boulevard. It is set back roughly thirty feet from the road and sits in the center of a grassy yard, which is enclosed by a chain link fence. Shade trees grow around the house to the east and west. A gravel driveway leads from the road and terminates in front of the attached garage. A shed stands beside the house to the east. In the front yard along the driveway, a well is situated to the southeast of the house. The property is bordered by residential properties to the east and west.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 046-5694
House, 7523 Mill Creek Drive



This single-family dwelling, located at 7523 Mill Creek Drive, was constructed in 1947, according to local land records. The house is a one-story, four-bay, Ranch-style house with a rectangular form. Its structural framework is wood frame, clad in composite siding, and it rests atop a continuous, brick foundation. The roof is cross-gabled and is covered with asphalt shingles. On the primary façade (south elevation), the main entrance was not observed during the survey due to a partial-width, enclosed porch that shelters the door. A central, screen door leads into the porch; the door is sheltered by a metal awning that spans the entire width of the porch. The porch has a front-gable roof. Fenestration consists of six-over-six, two-over-two, and one-over-one, double-hung sash windows, some of which are accompanied by faux shutters. The house has no additional ornamentation.

The house is located in a rural area on the north side of Mill Creek Drive. It is set back roughly fifty feet and sits in the center of a grassy yard. Two large trees grow in front of the house to the south. A gravel driveway leads from the road and terminates behind the house to the north. Various additions on the north elevation of the house connect with a large outbuilding, which stands to the northwest. At the edge of the woods to the north, a shed and garage are located behind the house. The property is bordered by a residential property to the west and by an open field to the east.

This property is an example of a typical mid-twentieth century, Ranch-style dwelling located within a rural setting in the region. It does not possess significant architectural features or characteristics and reconnaissance-level research did not identify any significant historical associations. As a result, it is considered ***not eligible*** for listing in the NRHP.

VDHR# 091-5098
Norfolk & Western Railway



The Norfolk & Western Railway was constructed in 1858, according to written data. Now operated as the Norfolk Southern Railroad, many historic elements of the original railroad remain in place. All of the former stations in the area have been demolished. The roughly four-mile portion of the railroad surveyed consists of two lines of timber ties on metal tracks with a gravel base underneath.

A roughly four-mile portion of the railroad between the towns of Zuni and Windsor was surveyed as a part of this effort. Within this area, the railroad runs in an east-west direction and parallels Route 460, which is located to the north. A small strip of properties is located between the railroad and Route 460 within the survey area. Most of the railroad is lined with thick vegetation, although some sort sections have been cleared in areas adjacent to development. Three roads cross over the railroad within the survey area. Crossing points are located at the points where Routes 638 and 639 intersect with the railroad. Additionally, a bridge crosses over the railroad at the point where Route 645 intersects with the railroad.

During the mid-nineteenth century, a number of businessmen in Norfolk sought out a new rail line that would connect the city with Petersburg. In 1851, the Norfolk and Petersburg Railroad Company was established and began making plans for the new line. Civil engineer William Mahone became the project's chief engineer in 1853. Due to various setbacks, the railroad was not completed until 1858. Shortly after its completion, the railroad company was faced with new challenges when civil war broke out in 1861. Between 1862 and 1865, both Union and Confederate forces removed portions of the track in an effort to keep the opposing side from making use of the railroad. During the siege of Petersburg from 1864 to 1865, soldiers on both sides of the conflict dismantled portions of the line and used the materials in their defenses.

After the war, Mahone continued to serve as an executive and worked to repair the railroad. As president of various railroad companies, he established the Atlantic, Mississippi and Ohio Railroad Company in 1870, which connected Norfolk to the Mississippi Valley. The Norfolk & Petersburg

Railroad was added to the AM&O at this time. In 1881, the company fell under new ownership due to financial issues that forced Mahone to sell his interests. The new owner renamed the AM&O the Norfolk & Western Railway at this time. During the early twentieth century, several improvements, such as double tracking, were made to the line in order to keep up with demands for increased tonnage. As a result, no vestiges of the railroad that were built under Mahone's leadership remain in place today. During both World War I and World War II, the railroad was used to transport troops and equipment to Norfolk. In 1982, the Norfolk & Western merged with the Southern Railway to form the Norfolk Southern Corporation, which owns the railroad today.

Although only a small portion of the corridor was subject to this survey, and a full evaluation of the Norfolk and Southern Railroad is beyond the scope of this effort, it is acknowledged that the railroad is a significant aspect of regional and state history. While the portion of the line within the survey area has been altered, the corridor continues to convey its association with transportation development in Southside Virginia during the nineteenth and twentieth centuries. As such, it was previously determined eligible for listing in the NRHP by the VDHR in 2004, and most recently in 2020. It is D+A's opinion that the portion of the resource within the survey area still be considered ***potentially eligible*** for listing in the NRHP.

As a potentially NRHP-eligible resource within the survey area, an assessment of potential impacts brought about by the project is necessary. While project details including site plan, array layout, and vegetative screening are still under development, this resource is not located directly within the project area and therefore an assessment of potential visual impacts was conducted at this time.

To assess whether the project may pose a visual impact to the resource, a viewshed assessment was conducted from select vantage points along the corridor towards the project area. Inspection was performed and photographs towards the project area taken to document existing visibility and surrounding setting. This effort found that the railroad corridor extends through the project area, abutting the perimeter of several of the project tracts and within one-half mile of several others. The vast majority of the railroad corridor in the vicinity of the project area is lined by vegetation, varying from narrow treelines immediately along the corridor to thicker wooded areas that extend further out. The corridor crosses two roadways within the survey area, including Antioch Road and Ecella Road. While much of the corridor is bordered by undeveloped land through the survey, there are some buildings that border the corridor in the vicinity of the road crossings.

Inspection was only possible from the public road crossings which found that discrete tracts of the project area and associated improvements may be visible from these locations, however would be amongst other development lining the roads, much of which is nonhistoric. Much of the existing vegetation that lines the railroad corridor is within the railroad ROW and would therefore not be cleared as part of this project and will continue to provide screening to prevent wide and/or uninterrupted views of the project.

Therefore, the project may introduce a change in the setting and viewshed of the landscape within and immediately surrounding the portion of the corridor in the vicinity of the project. However, despite the likely visibility of project improvements from vantage points along the corridor in the vicinity of the project area, the proposed project is not anticipated to alter the overall alignment of the existing corridor, nor introduce any features that are substantially different or incompatible from its constantly evolving setting. It is therefore D+A's opinion that the proposed project will

have no more than a ***minimal impact*** overall on the Norfolk and Western Railroad corridor per VDHR's impact characterization.

Figure 6-24 illustrates the location of the Norfolk and Western Railroad corridor in relation to the project area, with the location and direction of representative photographs. Figures 6-25 through 6-31 provide representative photographs of and from the corridor towards the project area.

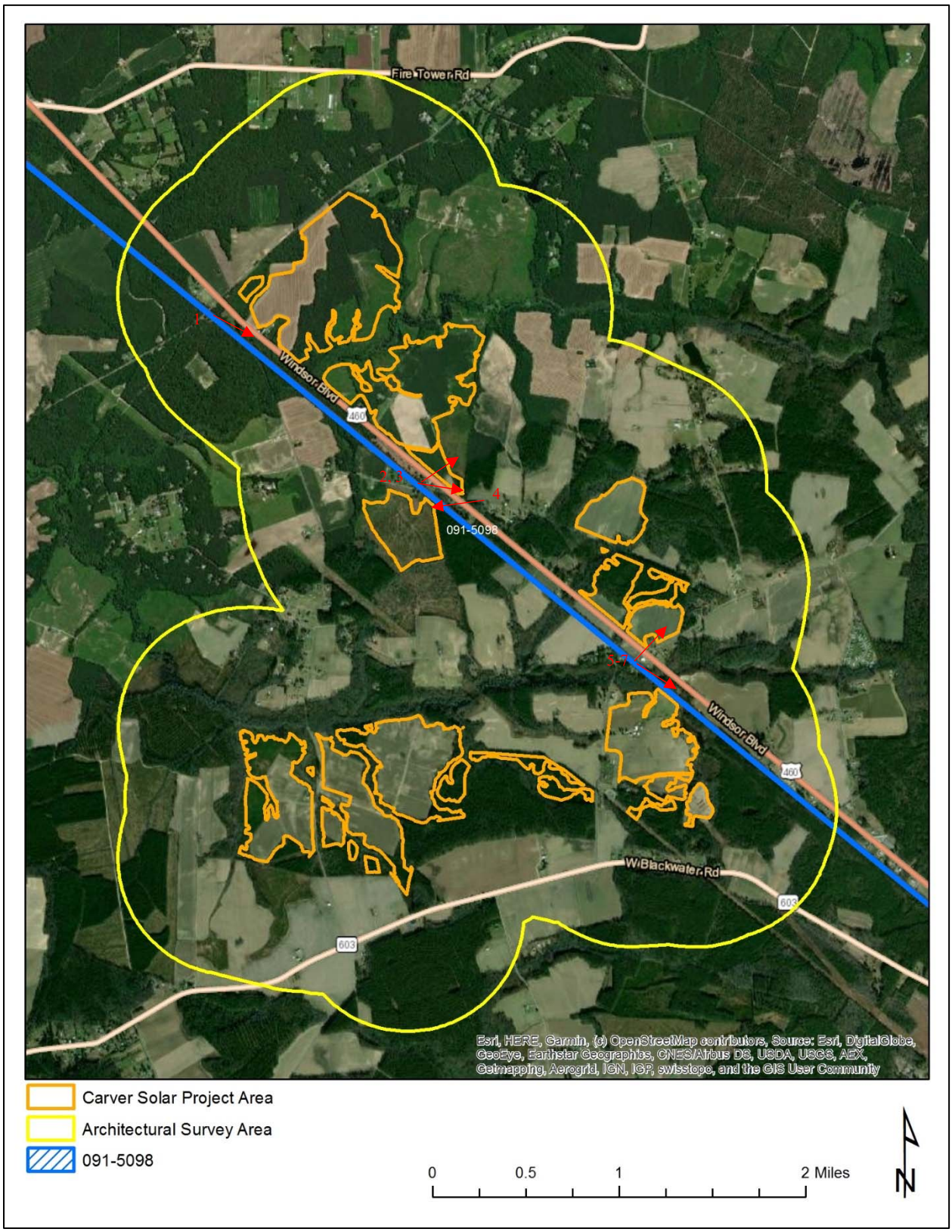


Figure 6-24: Norfolk and Western Railroad in relation to the project and survey areas with locations and directions of representative photos.



Figure 6-25: View 1- Norfolk Western Railroad corridor at Yellow Hammer Road, facing southeast (project not visible – screened by vegetation).



Figure 6-26: View 2- Norfolk Western Railroad corridor at Ecella Road crossing, facing east (project area visible in field immediately to the east, but screened on opposite side of railroad by raised berm and existing development).



Figure 6-27: View 3- Norfolk Western Railroad corridor at Ecella Road crossing, facing north (project area not visible – screened by raised berm and existing development).



Figure 6-28: View 4 - Norfolk Western Railroad corridor at Ecella Road crossing, facing west (project area not visible - screened on opposite side of corridor by existing vegetation).

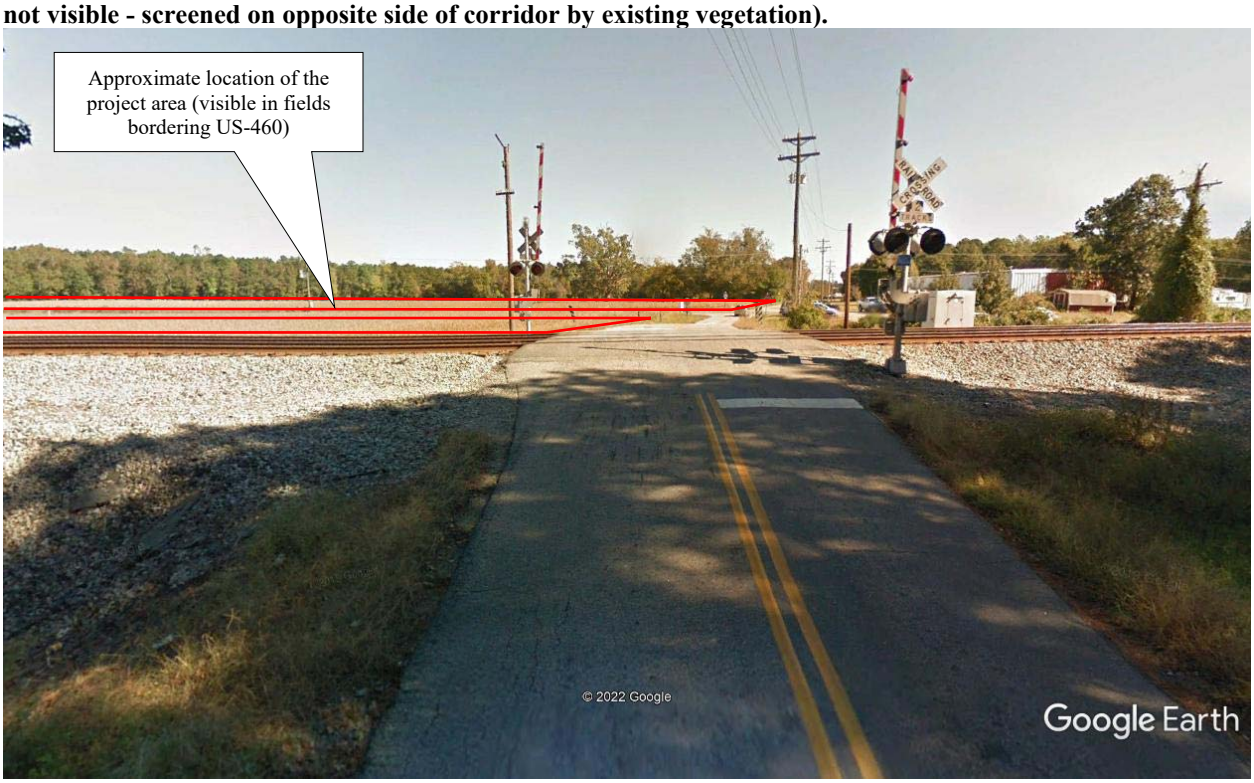


Figure 6-29: View 5- Norfolk Western Railroad corridor at Antioch Road, facing north (project area is visible in fields on opposite side of railroad corridor and US-460).



Figure 6-30: View 6- Norfolk Southern Railroad corridor at Antioch Road (project area not visible – screened by raised berm).



Figure 6-31: View 7- Norfolk Western Railroad corridor at Antioch Road, facing southeast (project area not visible – screened by existing vegetation).

7. CONCLUSIONS AND RECOMMENDATIONS

In April 2022, Dutton +Associates, LLC (D+A) completed a Phase I architectural resource survey (Phase I) of the Carver Solar Project Area in Isle of Wight County, Virginia. The effort was intended to provide documentation and assessment of architectural resources within the project area to make recommendations as to whether they may be potentially eligible for listing in the National Register of Historic Places (NRHP) and assess those that are considered NRHP-eligible for project impacts. The effort was conducted in support of an application to Isle of Wight County for a Conditional Use Permit (CUP) and application to the Department of Environmental Quality (DEQ) for a Permit By Rule (PBR). Although the project will require archaeological investigations as well, that study will be conducted as part of a separate effort and reported in a separate document.

The project involves the development of a solar energy production facility in the Windsor vicinity of southeastern Isle of Wight County. The project area is spread across several tracts of land to the west of Windsor along U.S. 460, bound generally by Yellow Hammer Road to the west, Deerfield Drive to the north, Antioch Road to the east, and Blackwater Road to the south. The project tracts are currently a mix of agricultural field and woodland (both native and planted timber). Several have homes and/or agricultural complexes that will be excluded from the proposed development. As part of the project, a series of solar arrays will be built throughout the project area and will tie into the power grid through connection to an existing transmission line on the east side of Antioch Road.

The architectural resources survey for the Carver Solar project resulted in the identification of a total of eighty-two (82) architectural resources greater than 50 years of age (constructed in 1972 or earlier) located within the survey area. Of the surveyed resources, fifty-four (54) were previously recorded (VDHR# 046-0034, 046-5057, 046-5086, 046-5088, 046-5089, 046-5099/5105, 046-5107/5111, 046-5113, 046-5114, 046-5277, 046-5293, 046-5294, 046-5307, 046-5501, and 091-5098) and twenty-eight (28) were newly recorded during this Phase I Survey (VDHR# 046-5664, 046-5668/5694). Twenty-nine (29) of the previously recorded resources were evaluated and determined not eligible for listing in the NRHP by the SHPO in 2020 and were therefore not subject to resurvey or evaluation as part of this effort (VDHR# 046-0116/0121, 046-0132, 046-5026/5029, 046-5055, 046-5056, 046-5087, 046-5112, 046-5154, 046-5295, 046-5296, 046-5298, 046-5569/5574/5577). An additional two (2) of the previously recorded resources (VDHR# 046-0034 and 046-5057) were revealed to have been demolished. The resources surveyed as part of this effort primarily include domestic and agricultural buildings from the mid-nineteenth to late-twentieth century, as well as a nineteenth century family cemetery, a railroad corridor, and several twentieth century commercial buildings.

A total of four resources identified within the survey area are considered eligible or potentially eligible for listing in the NRHP including two homes, a commercial building, and a railroad corridor. Of the two homes, the farm at 23255 Barrett Town Road (VDHR# 046-5089) has previously been determined potentially eligible as a good example of a mid-nineteenth century plantation home in the area with a relatively intact property and several potentially nineteenth century outbuildings. The second home, a farm located at 7431 Deerfield Drive (VDHR# 046-5671) is believed to have been built circa 1894, but replaced an eighteenth-century dwelling, and

retains several nineteenth century outbuildings as well as family cemetery. The commercial building is the 1930s roadside "Hobb's Store" (VDHR# 046-5101) that has been determined eligible for its association to the development of U.S. 460 and a unique example of a service station with a complex of motor lodge cabins. The Norfolk and Western Railroad (VDHR# 091-5098) has also been determined potentially eligible for its association to the growth and development of commerce in the region from the nineteenth century through the present-day.

Each of the four NRHP-eligible resources within the survey area were subject to an assessment of impacts according to VDHR's impact characterization scale. Two of the resources are located on tracts included in the project, but the building complexes themselves are outside of the project area (Farm at 23255 Barrett Town Road – VDHR# 046-5089 and Hobb's Store – VDHR# 046-5101). As such, solar arrays, infrastructure, and other improvements will be made within and around the boundaries of these two properties. The buildings themselves and adjacent yardscapes will be excluded from the development footprint and access will be maintained with existing driveways. The avoidance areas will extend from the buildings to the road and will tie into setback of project improvements from the roads to maintain visibility of the resources from public ROW. Existing vegetation in the vicinity of the building complexes will also be maintained and where no vegetation currently exists, a robust supplemental landscape buffer of evergreen trees will be planted to screen improvements from the roads and building complexes. As such, the project will result in direct impacts, as well as a change of setting and viewshed for both resources, however, with regards to the farm at 23255 Barrett Town Road, the impacts to the property will be more substantial as its associated property, field/woodland patterns, and landscape are contributing to its character as a farm and **therefore it is D+A's opinion that the project will result in a moderate impact to the farm at 23255 Barrett Town Road (VDHR# 046-5089)**. With regards to the Hobb's Store, however, the impacts will not substantially compromise the qualities and characteristics that make it significant or eligible for listing in the NRHP. As a roadside commercial building and tourist motel, its architecture and connectivity to the highway are considered key contributing aspects of its setting and will be preserved, while the farm fields and woodland to the rear where improvements are to be located are not as character-defining. **Therefore, it is D+A's opinion that the project will have no more than a minimal impact to the Hobb's Store (VDHR# 046-5101).**

For the other two properties located within the survey area but not within the project area, analysis found that the Farm at 7431 Deerfield Drive is located just north of the project area. Although the property parcel on which it is set immediately abuts the edge of the project area, the home and associated building complex are set centrally within the large property and a greater distance from the project. Existing vegetation on the property, including a thick timber stand, as well as a native wooded area bordering the swamp that extends along the perimeter of the property completely screens the project area from view and is anticipated to inhibit visibility of any project improvements. The Norfolk and Western Railroad corridor extends through the project tracts, although does not directly cross any of them. This corridor is lined by treelines and wooded areas for much of its length through the vicinity which buffer it from the project area. Inspection from the three road crossings in the vicinity reveal that in general this vegetation and other development bordering the roads and corridor screen wide views of the project area and will minimize visibility of project improvements. Therefore the project may introduce a slight change in the setting and viewshed of the landscape within and immediately surrounding the portion of the corridor in the vicinity of the project, although the project is not anticipated to alter the overall alignment of the

existing corridor, nor introduce any features that are substantially different or incompatible from its constantly evolving setting. **Therefore, it is D+A's opinion that the project will result in no more than a minimal impact to these resources.** Below is a summary of NRHP-eligible resources and recommendations of impacts.

Table 7-1: NRHP-eligible architectural resources with recommendations of project impacts

VDHR#	Resource Name/Address	Year Built	NRHP Eligibility	Project Impacts
046-5089	Farm, 23255 Barrett Town Road	c.1850	Potentially NRHP-Eligible	Moderate Impact
046-5101	Hobb's Store, 6635 Windsor Boulevard	c.1933	NRHP-Eligible	Minimal Impact
046-5671	Farm, 7431 Deerfield Drive	c.1894	Potentially NRHP-Eligible	Minimal Impact
091-5098	Norfolk and Western Railroad	c.1858	NRHP-Eligible	Minimal Impact

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APPENDIX A: RESUMES

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ROBERT J. TAYLOR, JR
Senior Architectural Historian

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT



Education

Master of Arts, 2009
Historic Preservation
Savannah College of Art and Design
Savannah, Georgia

Bachelor of Arts, 2005
Historic Preservation
University of Mary Washington
Fredericksburg, Virginia

Awards

Eagle Scout, 2001

Mr. Taylor holds a B.A. in Historic Preservation from University of Mary Washington and a M.A. in Historic Preservation from Savannah College of Art and Design. He has over 10 years of Cultural Resource Management Experience and has taken part in projects in Virginia, North Carolina, Maryland, Delaware, New Jersey, Rhode Island, Pennsylvania, Ohio, Florida, and California.

His experience in Cultural Resource Management includes working on both Architectural and Archaeological projects while participating in all phases of compliance from project initiation and development to completion. His work includes conducting field surveys, researching and documenting historic resources, completing site file forms, writing reports, preparing *NRHP* evaluations and documentation for individual resources and historic districts, compiling HABS/HAER documentation packages, preparing Cell Tower compliance packages, and conducting archaeological testing. He has a thorough understanding of the laws and regulations that govern cultural resources and has assisted with a number of Cultural Resource Management Plans, Programmatic Agreements, and Memorandum of Agreements. Outside of CRM, he has worked for the Thomas Jefferson's Monticello Foundation where he was a field archaeologist and assisted with the long-term, Plantation Survey Project on Monticello Mountain. Mr. Taylor's primary interests lie in Architectural Forensics and the study of building evolution.

As Senior Architectural Historian for Dutton + Associates, Mr. Taylor manages and conducts all aspects of historic and architectural resource projects and studies.

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Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

ROBERT J. TAYLOR, JR
Senior Architectural Historian

Professional Experience

Dutton + Associates, LLC, Architectural Historian, Richmond, Virginia, March 2009-present.
Manages architectural history studies, provides regulatory and compliance consultation, conducts Historic Resources Surveys, prepares NRHP nominations, HABS/HAER packages, site forms, and other documentation packages; performs research and context development, and authors project reports.

Thomas Jefferson Monticello Foundation, Field Archaeologist, Charlottesville, Virginia, Winter 2008- 2009. Conducted archaeological testing, assisted with site research, performed lab work

Janus Research, Inc, Architectural Historian, Tampa, Florida, August 2005- May 2008.
Conducted field surveys, Prepared NRHP and HABS/HAER documentation packages, authored Cultural Resource Assessment Survey Reports

Example Projects and Publications

Transmission Line Projects
Phase I Cultural Resources Survey of the Cunningham to Elmont 500 kV Transmission Line, Multiple Counties
Phase I Cultural Resources Survey of the TL47 230kV Transmission Line Rebuild, Multiple Counties
SCC Pre-Application Study for the Gainesville-Haymarket Substation and Transmission Line, Prince William Co
Cultural Resources Survey of the Bearwallow-Faraday Transmission Line Rebuild Project, Tazewell County
Phase I Cultural Resources Survey of the Dominion Line 567 Wilcox Wharf to Windmill Point Rebuild Project, Charles City and Prince George County
Phase I Survey of the Chase City-Kerr Dam, Line 137 and 138, Mecklenburg County
SCC Pre-Application Study of the Mount Storm-Valley Rebuild Project, Rockingham County
Phase I Survey of the Hayes-Yorktown 230kV Transmission Line, Gloucester County

Substation Projects
SCC Pre-Application Study of the Elklick Substation Expansion, Fairfax Co
SCC Pre-Application Study of the Roundtable Substation, Fairfax County
Phase I Survey of the Possum Point Project, Prince William County

Wind Power Projects
Phase I Cultural Resources Survey of the Rocky Forge Wind Project, Botetourt County

Solar Projects
Phase I Survey of the Briel Solar Farm, Henrico Co
Phase I Survey of the Puller Solar Project, Middlesex County
Phase I Survey of the Whitehouse Solar Project, Louisa County
Phase I Survey of the Hosier Road Solar Project, Suffolk County
Phase I Survey of the Twitty Creek Solar Project, Charlotte County

Other
Phase III Investigations of the Spring Hill Plantation Site for the Dominion Reymet Road Expansion Project, Chesterfield County
HALS Photography for the Skiffe's Creek 500kV Transmission Line Project, Charles City County

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DARA FRIEDBERG
Architectural Historian

D
A

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT



Education

Master of Science, 2004
Historic Preservation
University of Pennsylvania
Philadelphia, Pennsylvania

Bachelor of Arts, 1999
Historic Preservation
Mary Washington College
Fredericksburg, Virginia

Ms. Friedberg holds a M.S. in Historic Preservation, concentrating in Architectural Conservation, from University of Pennsylvania and a B.A. in Historic Preservation from Mary Washington College. She has worked in historic preservation and conservation since 1999 and has taken part in projects in Virginia, Maryland, Pennsylvania, Washington, D.C., South Carolina, Georgia, Connecticut, New York, Illinois, Ohio, and Tennessee.

Her experience in Cultural Resource Management includes conducting field surveys, researching and documenting historic resources, preparing National Register of Historic Places nominations, performing archival research, assisting in Federal Tax Credit projects, and completing material analyses of historic mortar and paint.

Prior to working at Dutton + Associates, she was employed as a conservator. This allowed her to conduct multiple conditions assessments of architecture, monuments, and sculptures as well as provide treatment recommendations and project specifications. She has also physically worked on the conservation of stone, metal, and decorative painting. At the completion of each project she provided thorough documentation of each process undertaken.

As an Architectural Historian for Dutton + Associates, Ms. Friedberg collaborates on all aspects of historic and architectural projects including performing field work, conducting project research, and authoring project reports.

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Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

DARA FRIEDBERG
Architectural Historian

Professional Experience

Dutton + Associates, LLC, Architectural Historian, Midlothian, Virginia, 2013-Present
Conducts historic resources surveys, performs background research, develops historic contexts, writes National Register nominations, and authors and formats project reports

Kreilick Conservation, LLC, Conservator, Oreland, Pennsylvania, 2006-2012
Completed conditions assessments and treatment recommendations for stone and metal projects, conserved stone and metal architectural elements, monuments, and sculptures, and authored conservation reports.

Powers & Company, Inc., Preservation Associates, Philadelphia, Pennsylvania, 2002-2006
Conducted historic resources surveys, performed background research, assisted with Federal Historic Preservation Tax Credit projects, completed mortar and historic paint analyses, completed conditions assessments and recommendations for buildings, produced reports for large scale restoration projects, and created project specifications.

Albert Michaels Conservation, Inc., Conservation Technician, Harrisburg, Pennsylvania, 2001-2002
Conserved decorative paintings and refinished ornate wood, and authored conservation reports.

KCI Technologies, Inc., Cultural Resource Specialist, Hunt Valley, Maryland, 2000-2001
Conducted historic resources surveys, performed background research, and authored project reports.

Restoration Concepts, Restoration Intern, Burlington, Vermont, 1999
Assisted in the restoration of a building.

Example Projects

National Register of Historic Places Nominations
- Tower Building, Richmond
- Lee Medical Building, Richmond
- Fuqua Farm, Chesterfield

Preliminary Information Forms
- North Thompson Street Historic District, Richmond
- Virginia Avenue Elementary School, Petersburg

Interpretive Signs
- Skiffes Creek Interpretive Signs, multiple counties
- Spring Hill Plantation Interpretive Signs, Chesterfield Co.

Viewshed Analyses
- Viewshed Assessment for Fort Evans, Loudoun Co.
- Viewshed Analysis for Ellerslie, Surry Co.

Military Analyses and Landscape Studies
- Phase IA Assessment and Military Terrain Analysis of the Plantation Woods Property, Spotsylvania Co.
- Phase I, Viewshed Assessment, and Military Terrain Analysis for the Potato Run Mitigation Bank, Culpeper Co.
- Assessment of Two Core Areas of the Battle of Buckland Mills, Prince William Co.

Cultural Resource Survey and Compliance Reports
- Cultural Context and Thematic Study for the Proposed Revitalize RVA Project, Richmond
- Assessment of Fulton Gas Works, Richmond
- Documentary Study of the Cromley Row Project Area, Alexandria
- Study of Washington Boundary Ditches, Fairfax Co.
- Intensive Level Survey for Warehouse No. 3 of the Richmond Intermediate Terminal, Richmond
- Economic Context of Middlesex County and the Palmer House, Middlesex Co.
- Phase I Survey for the Remington-Gordonsville Transmission Line Rebuild Project, multiple counties
- Phase II Archaeological Evaluation of Site 44LD1244, Loudoun Co.

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COMMONWEALTH of VIRGINIA

Department of Historic Resources
2801 Kensington Avenue, Richmond, Virginia 23221

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Acting Secretary of Natural and Historic Resources

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July 26, 2022

Robert J. Taylor, Jr., M.A.
Dutton + Associates, LLC
1115 Crowder Dr.
Midlothian, VA 23113

RE: Carver Solar Project Phase I Architectural Resource Survey
Lancaster County, Virginia
DHR File No. 2022-3225

Dear Mr. Taylor:

We have received for review the *Phase I Architectural Resource Survey of the Carver Solar Project Area* prepared by Dutton + Associated (D+A) on behalf of Carver Solar I, LLC. We provide the following comments in support of an application to the Department of Environmental Quality (DEQ) for a Permit-by-Rule to construct and operate a small solar project Lancaster County, Virginia. Please note that these comments are regarding the impacts to architectural resources within or near the project area. To date, the archaeological survey of the project area has not been received, and DHR cannot provide comments on the overall impacts of the project at this time.

The architectural report identified eighty-two (82) resources; which includes fifty-four (54) previously recorded resources and twenty-eight (28) newly identified resources within the 0.5-mile study area. Two (2) previously recorded have been demolished. Of the surveyed resources, four (4) resources are eligible, potentially eligible or considered eligible for listing in the Virginia Landmarks Register (VLR) and National Register of Historic Places (NRHP).

D+A recommends a moderate impact to the potentially VLR/NRHP-eligible Farm (DHR ID #046-5089). The resource is within the project lease area and the historic integrity of setting and will be diminished by the project. The conceptual site plan includes minimization efforts such as excluding a portion of the landscape to the front (between it and the road) from the development footprint; setting back improvement areas in all directions from the avoidance areas; installing of a supplemental buffer of evergreen trees where vegetation does not currently exist; and extending the buffer around the perimeter of the avoidance area to screen improvements in the background as well. D+A included the conceptual site plan in the report. ***DHR conditionally concurs*** that there will be a moderate adverse impact to #046-5089 warranting mitigation. We will need to see a detailed planting plan as the condition to our concurrence. This planting plan should include renderings with mature growth superimposed onto key viewshed photos to and from #046-5089.

The entire potentially VLR-NRHP-eligible Hobbs Store (DHR ID #046-5101) parcel is included within the project lease area. Solar arrays, infrastructure, and other improvements will be made within and around the resource boundary and the primary commercial building and surrounding building complex will be excluded from the development footprint. The conceptual site plan includes minimization efforts such as setting back improvements in all directions from the avoidance area; maintaining sight lines of the building complex from public ROW in each direction; maintaining existing vegetation throughout the building complex and to the east side; installing a supplemental buffer of evergreen trees where vegetation does not currently exist along the front of the field to the west of the property; and extending around the perimeter of the avoidance area to screen improvements in the background as well. D+A recommends a minimal impact and ***DHR does not concur***. It is DHR's opinion that this will be a moderate adverse impact warranting mitigation. A majority of the resource boundary will be filled with arrays. If the opinion is that the current boundary for #046-5101 needs to be reassessed, which currently includes the fields and wooded property to the rear of the primary resource, then additional survey work will be needed to justify the redrawing of the boundary and submitted to DHR for review and comment. If at that time DHR concurs that the boundary redrawing is justified, we will reassess our opinion on impacts. We will need to see a detailed planting plan on #046-5101 to include renderings with mature growth superimposed onto key viewshed photos to and from #046-5101.

DHR concurs with D+A's recommendation that the Farm (DHR ID #046-5671) is potentially VLR/NRHP eligible. This resource is not located directly within the project area and a swamp and surrounding woodland extending into the project area and will be avoided and not cleared as part of the project. Therefore D+A recommends a minimal impact to #046-5671 and ***DHR concurs***.

In sum, there will be moderate adverse impacts to the Farm (DHR ID #046-5089) and Hobbs Store (DHR ID #046-5101), which both warrant mitigation. Mitigation options should be discussed in consultation with DHR. Additionally, we need to see a detailed planting plans for both resources to include renderings with mature growth superimposed onto key viewshed photos to the resource from the project area and from the project area to the resource.

Please see the attached, updated table for impact and eligibility recommendations.

If you have any questions regarding these comments, please contact me at 804-482-8091 or via email, jennifer.bellville-marrion@dhr.virginia.gov.

Sincerely,



Jenny Bellville-Marrion, Project Review Archaeologist
Review and Compliance Division

c. David Dutton, D+A
Chris Egghart, DEQ

Architecture Eligibility and Impact Recommendations

TABLE KEY:	Warrants Mitigation	Needs Attention	**DHR does not concur**	***Not Surveyed due to 2020 Survey***

DHR #	Property Name / Address	D+A Eligibility	DHR Eligibility	D+A Impact	DHR Impact
046-0034	Mumford House, Windsor Boulevard	D+A: Demolished	Demolished	N/A	N/A
046-5057	Barn, West Blackwater Road	VDHR: Not Eligible (2004)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5086	Hedgepeth House, 22156 Barrett Town Road	VDHR: Not Eligible (2004)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5088	House, 23000 Barrett Town Road	VDHR: Not Eligible (2004)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5089	Farm, 23255 Barrett Town Road	VDHR: Potentially Eligible/ D+A: Potentially Eligible	Potentially Eligible	Moderate	Moderate with the Condition of DHR-approved Planting Plan
046-5099	House, 6456 Windsor Boulevard	VDHR: Not Eligible (2004)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5100	House, 6470 Windsor Boulevard	VDHR: Not Eligible (2004)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5101	Hobbs Store, 6635 Windsor Boulevard	VDHR: Eligible/ D+A: Potentially Eligible	Potentially Eligible	**Minimal**	**Moderate**
046-5102	House, 7229 Windsor Boulevard	VDHR: Not Eligible (2004)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5103	House, 7416 Ecella Road	VDHR: Not Eligible (2004)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5104	House, 7279 Ecella Road	VDHR: Not Eligible (2004)/	Not Eligible	N/A	N/A

DHR #	Property Name / Address	D+A Eligibility	DHR Eligibility	D+A Impact	DHR Impact
		D+A: Not Eligible			
046-5105	Commercial Building, 8189 Windsor Boulevard	VDHR: Not Eligible (2004)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5107	Mumford Family Cemetery, Yellow Hammer Road	VDHR: Not Eligible (2004)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5108	House, 7230 Ecella Road	VDHR: Not Eligible (2004)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5109	House, 21539 Barrett Town Road	VDHR: Not Eligible (2004)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5110	House, 7121 Ecella Road	VDHR: Not Eligible (2004)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5111	House, 8027 Winston Drive	VDHR: Not Eligible (2004)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5113	House, 9155 Windsor Boulevard	VDHR: Not Eligible (2004)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5114	House, 9169 Windsor Boulevard	VDHR: Not Eligible (2004)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5277	House, 23258 Barrett Town Road	VDHR: Not Eligible (2007)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5293	House, 21512 Barrett Town Road	VDHR: Not Eligible (2009)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5294	House, 7132 Ecella Road	VDHR: Not Eligible (2009)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5307	Commercial Granary, 22000 Barrett Town Road	VDHR: Not Eligible (2009)/	Not Eligible	N/A	N/A

DHR #	Property Name / Address	D+A Eligibility	DHR Eligibility	D+A Impact	DHR Impact
		D+A: Not Eligible			
046-5501	House, 9108 Cut Thru Road	VDHR: Not Eligible (2014)/ D+A: Not Eligible	Not Eligible	N/A	N/A
046-5664	House, 7346 Yellow Hammer Road	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5668	House, 7297 Yellow Hammer Road	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5669	House, 7246 Yellow Hammer Road	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5670	House, 7230 Yellow Hammer Road	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5671	Farm, 7431 Deerfield Drive	D+A: Potentially Eligible	Potentially Eligible	Minimal	Minimal
046-5672	House, 7296 Deerfield Drive	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5673	House, 7268 Deerfield Drive	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5674	House, 6250 Yellow Hammer Road	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5675	House, 6278 Yellow Hammer Road	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5676	House, 8072 Winston Drive	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5677	House, 9071 Cut Thru Road	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5678	House, 22038 Garrison Drive	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5679	House, 22004 Garrison Drive	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5680	House, 21296 Garrison Drive	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5681	House, 21416 Garrison Drive	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5682	House, 7334 Ecella Road	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5683	House, 7295 Ecella Road	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5684	House, 22150 Barrett Town Road	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5685	House, 22288 Barrett Town Road	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5686	House, 22310 Barrett Town Road	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5687	House, 22392 Barrett Town Road	D+A: Not Eligible	Not Eligible	N/A	N/A

DHR #	Property Name / Address	D+A Eligibility	DHR Eligibility	D+A Impact	DHR Impact
046-5688	House, 21260 Leander Lane	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5689	House, 8115 Windsor Boulevard	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5690	House, 8089 Windsor Boulevard	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5691	House, 7570 Windsor Boulevard	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5692	Southern States, 9242 Windsor Boulevard	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5693	House, 9141 Windsor Boulevard	D+A: Not Eligible	Not Eligible	N/A	N/A
046-5694	House, 7523 Mill Creek Drive	D+A: Not Eligible	Not Eligible	N/A	N/A
091-5098	Norfolk & Western Railway	VDHR: Eligible/ D+A: Potentially Eligible	Eligible	Minimal	Minimal
046-0116	*Farm, 8151 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-0117	*House, 8299 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-0118	*Bostick Cemetery*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-0119	*Morning Star Baptist Church, 8445 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-0120	*House, 8503 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-0121	*House, 9177 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-0132	*Morning Star Baptist Cemetery, 8445 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5026	*Farm, 7095 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5027	*House, 7289 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5028	*Chapel Grove Congregational Christian Church, 7366 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5029	*House, 7443 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5055	*House, 7058 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5056	*House, 6483 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*

DHR #	Property Name / Address	D+A Eligibility	DHR Eligibility	D+A Impact	DHR Impact
046-5087	*House, 7683 Mill Creek Drive*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5112	*Farm, 23093 Antioch Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5154	*Antioch Christian Church, 23011 Antioch Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5295	*House, 8021 Mill Creek Drive*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5296	*House, 23050 Antioch Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5298	*House, 8464 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5569	*House, 8430 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5570	*House, 8412 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5571	*House, 8404 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5572	*House, 8394 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5573	*House, 8384 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5574	*House, 8376 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5575	*Antioch Christian Cemetery, Antioch Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5576	*House, 7076 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*
046-5577	*House, 7524 Blackwater Road*	*VDHR: Not Eligible (2020)*	*VDHR: Not Eligible (2020)*	*N/A*	*N/A*

CARVER SOLAR - 71 MW

ECONOMIC & FISCAL CONTRIBUTION TO ISLE OF WIGHT COUNTY, VIRGINIA



Prepared for

OPEN ROAD RENEWABLES

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About Mangum Economics, LLC

Mangum Economics is a Glen Allen, Virginia based firm that was founded in 2003. Since then, we have become known as a leader in industry analysis, economic impact assessment, policy and program evaluation, and economic and workforce strategy development. The Mangum Team specializes in producing objective and actionable quantitative economic research that our clients use for strategic decision making in a variety of industries and environments. We know that our clients are unique, and that one size does not fit all. As a result, we have a well-earned reputation for tailoring our analyses to meet the specific needs of specific clients, with a specific audience.

Most of our research falls into four general categories:

- **Information Technology:** Working with some of the largest names in the industry, to date the Mangum Team has produced analyses of the economic and fiscal impact of the data center industry in Virginia, home to the largest concentration of data centers in the world, and in five other states.
- **Energy:** The Mangum Team has produced analyses of the economic and fiscal impact of over 15 GW of proposed solar, wind, battery storage, and hydro projects spanning Virginia and eleven other states. Among those projects was Dominion Energy's 2.6 GW Coastal Virginia Offshore Wind project off of Virginia Beach. In addition, the Mangum Team has also performed economic and fiscal impact analyses for the natural gas, nuclear, oil, and pipeline industries.
- **Economic Development and Special Projects:** The Mangum Team has performed hundreds of analyses of proposed economic development projects. Most recently, we were called upon by Henrico County to provide an analysis of the proposed $2.3 billion Green City "net-zero eco district." The Mangum Team has also authored multiple economic development plans, including identifying industries that were likely recruitment targets because of the high-speed MAREA and BRUSA sub-sea cable landings in Virginia Beach.
- **Education and Workforce:** The Mangum Team has worked with multiple post-secondary and secondary education institutions to quantify their economic contribution to their host communities as well as their impact on regional and statewide workforce needs.

The Project Team

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Executive Summary

This report assesses the economic and fiscal contribution that the proposed Carver Solar project would make to Isle of Wight County, Virginia. The primary findings from that assessment are as follows:

1) **Carver Solar is a proposed 71-megawatt (MW) alternating current (AC) solar photovoltaic power generating facility. The project would be located on both sides of Route 460 approximately 2 miles northwest of the Town of Windsor in Isle of Wight County, Virginia. The estimated actively used, fenced-in solar site would be approximately 596 acres of agricultural land and timberland.**

2) **The proposed Carver Solar project would make a significant economic contribution to Isle of Wight County:**

   - The proposed Carver Solar project would provide an estimated one-time pulse of economic activity to Isle of Wight County during its construction phase supporting approximately:
     - 56 direct, indirect, and induced jobs.
     - $2.6 million in associated labor income.
     - $7.5 million in economic output.
   - The proposed Carver Solar project would provide an estimated annual economic impact to Isle of Wight County during its ongoing operational phase supporting approximately:
     - 2 direct, indirect, and induced jobs.
     - $68,900 in associated labor income.
     - $210,600 in economic output.

3) **The proposed Carver Solar project would also make a significant fiscal contribution to Isle of Wight County. The proposed project would generate approximately:**[1]

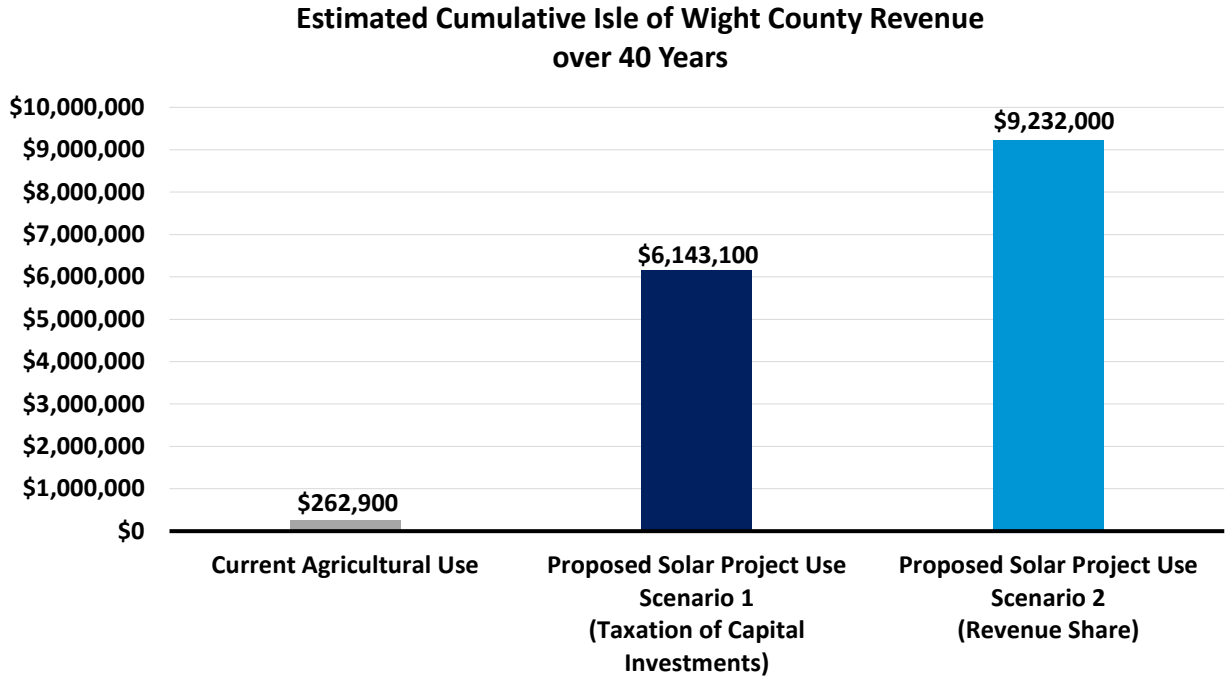
   - $207,600 in state and local tax revenue from the one-time pulse of economic activity associated with the project's construction.
   - $6.1 million in cumulative county revenue over the facility's anticipated 40-year operational life assuming revenues are generated from the reassessment of the real property and the taxation of the associated capital investments, (Scenario 1); or
   - $9.2 million in cumulative county revenue over the facility's anticipated 40-year operational life assuming revenues are generated from the reassessment of the real property and payments associated with locally adopted revenue share ordinance that

[1] Estimated revenue does not include voluntary payments associated with a siting agreement, which is subject to negotiation between Open Road Renewables and Isle of Wight County.

are based on the project's generation capacity and include a 10 percent escalator every five years (Scenario 2).

4) **The proposed Carver Solar project would have a significantly greater fiscal impact on Isle of Wight County than the property generates in its current agricultural use:**

   - The proposed Carver Solar project would generate approximately $6.1 million (from taxation on capital equipment) or $9.2 million (from a revenue share ordinance) in cumulative county revenue over the facility's anticipated 40-year operational life, as compared to approximately $262,900 in cumulative county revenue in the property's current agricultural use – a difference of approximately $5.9 million and $9.0 million.



5) **The proposed Carver Solar project would provide a boost to Isle of Wight County's construction sector:**

   - At 461 jobs, construction is Isle of Wight's sixth largest major industry sector.[2]
   - Additionally, the construction sector posted the second largest job gain of any major industry sector in the county between the first quarter of 2020 and the first quarter of 2021 (a gain of 28 jobs).
   - The proposed Carver Solar project could directly support approximately 47 jobs and $2.2 million in labor income in Isle of Wight County's construction sector.

[2] Data Source: Bureau of Labor Statistics.

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The estimates provided in this report are based on the best information available and all reasonable care has been taken in assessing that information. However, because these estimates attempt to foresee circumstances that have not yet occurred, it is not possible to provide any assurance that they will be representative of actual events. These estimates are intended to provide a general indication of likely future outcomes and should not be construed to represent a precise measure of those outcomes.

Introduction

This report assesses the economic and fiscal contribution that the proposed Carver Solar project would make to Isle of Wight County, Virginia. This report was commissioned by Open Road Renewables and produced by Mangum Economics.

The Project

Carver Solar is a proposed 71-megawatt (MW) alternating current (AC) solar photovoltaic power generating facility. The project would be located on both sides of Route 460 approximately 2 miles northwest of the Town of Windsor in Isle of Wight County, Virginia. The estimated actively used, fenced-in solar site would be approximately 596 acres of agricultural land and timberland.

Economic and Fiscal Impact

This section quantifies the economic and fiscal contribution that the proposed Carver Solar project would make to Isle of Wight County. The analysis separately evaluates the one-time pulse of economic activity that would occur during the construction phase of the project, as well as the annual economic activity that the project would generate during its ongoing operations phase.

Method

To empirically evaluate the likely local economic impact attributable to the proposed Carver Solar project, the analysis employs a regional economic impact model called IMPLAN.[3] The IMPLAN model is one of the most commonly used economic impact simulation models in the U.S., and in Virginia is used by UVA's Weldon Cooper Center, the Virginia Department of Planning and Budget, the Virginia Employment Commission, and other state agencies and research institutes. Like all economic impact models, the IMPLAN model uses economic multipliers to quantify economic impact.

Economic multipliers measure the ripple effects that an expenditure generates as it makes its way through the economy. For example, as when the Carver Solar project purchases goods and services – or when contractors hired by the facility use their salaries and wages to make household purchases – thereby generating income for someone else, which is in turn spent, thereby becoming income for yet someone else, and so on, and so on. Through this process, one dollar in expenditures generates multiple dollars of income. The mathematical relationship between the initial expenditure and the total income generated is the economic multiplier.

One of the primary advantages of the IMPLAN model is that it uses regional and national production and trade flow data to construct region-specific and industry-specific economic multipliers, which are then

[3] IMPLAN is produced by IMPLAN Group, LLC.

further adjusted to reflect anticipated actual spending patterns within the specific geographic study area that is being evaluated. As a result, the economic impact estimates produced by IMPLAN are not generic. They reflect as precisely as possible the economic realities of the specific industry, and the specific study area, being evaluated.

In the analysis that follows, these impact estimates are divided into three categories. First round direct impact measures the direct economic contribution of the entity being evaluated (e.g., own employment, wages paid, goods and services purchased by the Carver Solar project). Second round indirect and induced impact measures the economic ripple effects of this direct impact in terms of business to business, and household (employee) to business, transactions. Total impact is simply the sum of the preceding two. These categories of impact are then further defined in terms of employment (the jobs that are created), labor income (the wages and benefits associated with those jobs), and economic output (the total amount of economic activity that is created in the economy).

Construction Phase

This portion of the section assesses the economic and fiscal impact that the one-time pulse of activity associated with construction of the proposed Carver Solar project would have on Isle of Wight County.

Assumptions

The analysis is based on the following assumptions:

- Total investment in the Carver Solar project is estimated to be approximately $85.2 million.[4]
- Of that total:
    - Architecture, engineering, site preparation, and other construction and development costs are estimated to be approximately $32.1 million.[5]
    - Capital equipment costs are estimated to be approximately $53.1 million.[6] It is anticipated that no capital equipment would be purchased from vendors in Isle of Wight County.[7]
- For ease of analysis, all construction expenditures are assumed to take place in a single year.

[4] Data Source: Open Road Renewables.
[5] Data Source: Open Road Renewables.
[6] Data Source: Open Road Renewables.
[7] Data Source: IMPLAN Group LLC.

Results

Applying these assumptions in the IMPLAN model results in the following estimates of one-time economic and fiscal impact. As shown in Table 1, construction of the proposed Carver Solar project would directly provide a one-time pulse supporting approximately: 1) 47 jobs, 2) $2.2 million in labor income, and 3) $6.2 million in economic output to Isle of Wight County.[8]

Taking into account the economic ripple effects that direct investment would generate, the total estimated one-time impact on Isle of Wight County would support approximately: 1) 56 jobs, 2) $2.6 million in labor income, 3) $7.5 million in economic output, and 4) $207,600 in state and local tax revenue.

Table 1: Estimated One-Time Economic and Fiscal Impact on Isle of Wight County from Construction of the Carver Solar Project[9]

Economic Impact	Employment	Labor Income	Output
1st Round Direct Economic Activity	47	$2,249,700	$6,168,600
2nd Round Indirect and Induced Economic Activity	9	$356,400	$1,340,600
Total Economic Activity	**56**	**$2,606,100**	**$7,509,200**
Fiscal Impact			
State and Local Tax Revenue			**$207,600**

**Totals may not sum due to rounding.*

Ongoing Operations Phase

This portion of the section assesses the annual economic and fiscal impact that the proposed Carver Solar project would have on Isle of Wight County during its anticipated 40-year operational phase.

Assumptions

The analysis is based on the following assumptions:

- The Carver Solar project would spend approximately $170,800 each year for maintenance and repair, vegetative control, and other operational expenditures.[10]
- The Carver Solar project would involve an investment of approximately $85.2 million in capital equipment and improvements to the existing property.[11]

[8] It is important to note that construction sector jobs are not necessarily new jobs, but the investments made can also support an existing job during the construction of the project.
[9] It is important to note that construction sector jobs are not necessarily new jobs, but the investments made can also support an existing job during the construction of the project.
[10] Data Source: Open Road Renewables.
[11] Data Source: Open Road Renewables.

- The Carver Solar project would be situated on approximately 596 acres of fenced-in, leased and purchased land.[12]
- Only the actively used, fenced-in acreage would be removed from the land use program.
- The fenced-in acreage would be reappraised at $15,000 per acre.[13]
- The initial interconnection request for Carver Solar was filed in the 1st Quarter of 2018.[14]
- The Carver Solar project's total generation capacity would be 71 MW AC.[15]
- The Carver Solar project would become operational in the third quarter of 2024.[16]

Results – Economic Impact

Applying these assumptions in the IMPLAN model results in the following estimates of annual economic impact. As shown in Table 2, annual operation of the proposed Carver Solar project would directly support approximately: 1) 1 job, 2) $49,500 in labor income, and 3) $125,600 in economic output to Isle of Wight County.

Taking into account the economic ripple effects that direct impact would generate, the total estimated annually supported impact on Isle of Wight County would be approximately: 1) 2 jobs, 2) $68,900 in labor income, and 3) $210,600 in economic output.

Table 2: Estimated Annual Economic Impact on Isle of Wight County from the Ongoing Operation of the Carver Solar Project

Economic Impact	Employment	Labor Income	Output
1st Round Direct Economic Activity	1	$49,500	$125,600
2nd Round Indirect and Induced Economic Activity	1	$19,400	$85,000
Total Economic Activity	**2**	**$68,900**	**$210,600**

**Totals may not sum due to rounding.*

Results – Fiscal Impact

This portion of the section quantifies the direct fiscal contribution that the proposed Carver Solar project would make to Isle of Wight County. The analysis considers two scenarios. Both scenarios include the additional revenue that the Carver Solar project would generate for Isle of Wight County over a 40-year period from the increased property assessments associated with reassessing the site as solar use

[12] Data Source: Open Road Renewables.
[13] Data Source: Isle of Wight County Commissioner of Revenue's Office. Current assessment value of existing solar farm in the county.
[14] Data Source: Open Road Renewables.
[15] Data Source: Open Road Renewables.
[16] Data Source: Open Road Renewables.

property. Scenario 1 then describes the additional revenue Carver Solar would generate for Isle of Wight County from taxes levied on the capital investment, while Scenario 2 assumes tax revenue generated from the capital investment will be replaced with revenue associated with a locally adopted revenue share ordinance and based on the project's total generation capacity.

Reassessment of Property

Table 3 details the increased property assessments associated with removing the affected acreage from the land use program and reassessing the 596-acre fenced-in site as solar use property. The county real estate tax revenue from the project after reassessment is estimated to be approximately $75,990 per year, for a cumulative total of approximately $3.0 million over the project's anticipated 40-year operational life expectancy.[17] Adding one-time rollback taxes of approximately $54,052 increases that cumulative total to approximately $3.1 million. In contrast, the property currently generates approximately $6,573 per year in real estate tax revenue for the county, for a cumulative total of approximately $262,931 over 40 years.[18]

Table 3: Estimated County Revenue Generated by the Proposed Carver Solar Project over 40 Years from Real Estate Taxes

Estimated Increased Appraised Value of Property under Solar Use[19]	$8,940,000
Isle of Wight County Real Estate Tax Rate	0.0085
Annual County Real Estate Tax – Solar Use	$75,990
Cumulative Revenue over 40 Years	**$3,039,600**
One-time Rollback Taxes[20]	**$54,052**
Cumulative Revenue over 40 Years	**$3,093,652**

**Totals may not sum due to rounding.*

Scenario 1: Taxation of Capital Investment

Table 4 separately details the additional annual revenue that the proposed Carver Solar project would generate for Isle of Wight County over a 40-year period from taxes levied on capital investment. This calculation is based on: 1) the taxable portion of capital investments pursuant to the 80 percent local tax exemption pursuant to Virginia Code §58.1-3660[21], times 2) the State Corporation Commission's utility assessment ratio for taxation of public utilities in Isle of Wight County, times 4) the State Corporation

[17] Assumes property will be reassessed at $15,000 per acre once it is under solar use.
[18] Derived from Isle of Wight County's Real Estate Assessment database. Excludes value of existing structures.
[19] Calculated as 596 acres times $15,000.
[20] Rollback taxes are computed as the difference between the land use value assessment tax and the tax on the fair market value for the affected acreage for five complete tax years plus the current year, including 10 percent simple interest. Does not account for changes in assessment values.
[21] The Virginia Code §58.1-3660 stipulates that solar facilities over 20MW for which an interconnection request was filed between January 1, 2015 and June 30, 2018 are subject to an 80 percent exemption from local property taxes.

Commission's depreciation guidelines for solar facilities, times 5) Isle of Wight County's real property tax rate of $0.85 per $100 of assessed value pursuant to Virginia Code §58.1-2606.

As the data in Table 4 indicate, based on these calculations the estimated additional county revenue from taxation of capital investments associated with the proposed Carver Solar project would be approximately $120,501 in the project's first year of operation, with that figure projected to decline to approximately $13,389 in the project's 34th year of operation and thereafter, as the value of the proposed capital investments is depreciated, for a cumulative total of approximately $3.0 million.

Table 4: Estimated County Revenue Generated by the Proposed Solar Investment over 40 Years

Year	Total Capital Investment Subject to Exemption[22]	Less Exemption[23]	Capital Investment Less Exemption[24]	Depreciation[25]	Depreciated Value of Taxable Capital Investment	Additional Annual County Tax Revenue Solar Investment[26]
1	$85,200,000	80%	$15,751,776	90.0%	$14,176,598	$120,501
2	$85,200,000	80%	$15,751,776	90.0%	$14,176,598	$120,501
3	$85,200,000	80%	$15,751,776	90.0%	$14,176,598	$120,501
4	$85,200,000	80%	$15,751,776	90.0%	$14,176,598	$120,501
5	$85,200,000	80%	$15,751,776	90.0%	$14,176,598	$120,501
6	$85,200,000	80%	$15,751,776	90.0%	$14,176,598	$120,501
7	$85,200,000	80%	$15,751,776	90.0%	$14,176,598	$120,501
8	$85,200,000	80%	$15,751,776	90.0%	$14,176,598	$120,501
9	$85,200,000	80%	$15,751,776	89.7%	$14,127,768	$120,086
10	$85,200,000	80%	$15,751,776	88.2%	$13,888,341	$118,051
11	$85,200,000	80%	$15,751,776	86.6%	$13,634,737	$115,895
12	$85,200,000	80%	$15,751,776	84.9%	$13,366,957	$113,619
13	$85,200,000	80%	$15,751,776	83.1%	$13,083,425	$111,209
14	$85,200,000	80%	$15,751,776	81.1%	$12,780,991	$108,638
15	$85,200,000	80%	$15,751,776	79.1%	$12,461,230	$105,920
16	$85,200,000	80%	$15,751,776	77.0%	$12,122,567	$103,042
17	$85,200,000	80%	$15,751,776	74.7%	$11,763,426	$99,989
18	$85,200,000	80%	$15,751,776	72.3%	$11,383,809	$96,762
19	$85,200,000	80%	$15,751,776	69.7%	$10,978,988	$93,321
20	$85,200,000	80%	$15,751,776	67.0%	$10,552,115	$89,693

[22] Data Source: Open Road Renewables

[23] Pursuant to Virginia Code §58.1-3660, solar facilities over 20MW are subject to an 80 percent exemption from local property taxes if the interconnection request was filed between January 1, 2015 and June 30, 2018.

[24] Accounts for the State Corporation Commission's utility assessment ratio for taxation of public utilities in Isle of Wight County.

[25] Data Source: State Corporation Commission guidelines.

[26] Calculated pursuant to Virginia Code §58.1-2606 which stipulates that capital equipment owned by utilities is taxed as real property and the local tax rate on that capital equipment would be capped at Isle of Wight County's real property tax rate of $0.85 per $100 of assessed value.

Table 4: Estimated County Revenue Generated by the Proposed Solar Investment over 40 Years

Year	Total Capital Investment Subject to Exemption[22]	Less Exemption[23]	Capital Investment Less Exemption[24]	Depreciation[25]	Depreciated Value of Taxable Capital Investment	Additional Annual County Tax Revenue Solar Investment[26]
21	$85,200,000	80%	$15,751,776	64.1%	$10,098,464	$85,837
22	$85,200,000	80%	$15,751,776	61.1%	$9,618,034	$81,753
23	$85,200,000	80%	$15,751,776	57.8%	$9,109,252	$77,429
24	$85,200,000	80%	$15,751,776	54.4%	$8,568,966	$72,836
25	$85,200,000	80%	$15,751,776	50.8%	$7,997,177	$67,976
26	$85,200,000	80%	$15,751,776	46.9%	$7,389,158	$62,808
27	$85,200,000	80%	$15,751,776	42.8%	$6,746,486	$57,345
28	$85,200,000	80%	$15,751,776	38.5%	$6,064,434	$51,548
29	$85,200,000	80%	$15,751,776	33.9%	$5,343,002	$45,416
30	$85,200,000	80%	$15,751,776	29.1%	$4,575,891	$38,895
31	$85,200,000	80%	$15,751,776	23.9%	$3,764,674	$32,000
32	$85,200,000	80%	$15,751,776	18.4%	$2,904,627	$24,689
33	$85,200,000	80%	$15,751,776	12.7%	$1,992,600	$16,937
34	$85,200,000	80%	$15,751,776	10.0%	$1,575,178	$13,389
35	$85,200,000	80%	$15,751,776	10.0%	$1,575,178	$13,389
36	$85,200,000	80%	$15,751,776	10.0%	$1,575,178	$13,389
37	$85,200,000	80%	$15,751,776	10.0%	$1,575,178	$13,389
38	$85,200,000	80%	$15,751,776	10.0%	$1,575,178	$13,389
39	$85,200,000	80%	$15,751,776	10.0%	$1,575,178	$13,389
40	$85,200,000	80%	$15,751,776	10.0%	$1,575,178	$13,389
CUMULATIVE TOTAL						**$3,049,427**

Scenario 1: Total Fiscal Impact

Table 5 combines the results from the calculations depicted in Tables 3 and 4 to provide an estimate of the cumulative fiscal contribution that the proposed Carver Solar project would make to Isle of Wight County over its 40-year anticipated operational life under Scenario 1. As these data indicate, that cumulative total is approximately $6.1 million.

Table 5: Estimated Cumulative County Revenue from the Proposed Carver Solar Project over 40 Years under Scenario 1

County Real Estate Tax	$3,093,652
County Revenue from Taxation of Capital Investments	$3,049,427
TOTAL Cumulative Revenue over 40 Years[27]	**$6,143,079**

Scenario 2: Revenue Share Ordinance

The following section describes the additional annual revenue that the proposed Carver Solar project would generate for Isle of Wight County assuming the county adopts an energy revenue share ordinance under Virginia Code §58.1-2636. The Virginia Code currently stipulates that a locality may assess an annual revenue share of up to $1,400 per megawatt (MW) alternating current (AC) generation capacity of a solar facility. However, legislation that was passed in the 2021 General Assembly (SB 1201/HB 2006) and went into effect July 1, 2021, allows a 10 percent escalator to be applied to the $1,400 per MW revenue share every five years, beginning in 2026. Section 58.1-3660 further stipulates that capital investment associated with the solar project will be exempt from taxation if the county adopts an energy revenue share ordinance.

Table 6 details the revenue generated from a revenue share ordinance between Carver Solar and Isle of Wight County including the 10 percent escalator. Based on a total generation capacity of 71 MW AC and an assumed commissioning date in the third quarter of 2024, a revenue share ordinance would generate approximately $6.1 million over the anticipated 40-year operational life of the project.

Table 6: Estimated County Revenue Generated from a Revenue Share Ordinance over 40 Years

Year	MW	Revenue Share per MW with Escalator	Annual County Revenue
1	71	$1,400	$99,400
2	71	$1,540	$109,340
3	71	$1,540	$109,340
4	71	$1,540	$109,340
5	71	$1,540	$109,340
6	71	$1,540	$109,340
7	71	$1,694	$120,274

[27] Estimated revenue does not include voluntary payments associated with a siting agreement, which is subject to negotiation between Open Road Renewables and Isle of Wight County.

Year	MW	Revenue Share per MW with Escalator	Annual County Revenue
8	71	$1,694	$120,274
9	71	$1,694	$120,274
10	71	$1,694	$120,274
11	71	$1,694	$120,274
12	71	$1,863	$132,301
13	71	$1,863	$132,301
14	71	$1,863	$132,301
15	71	$1,863	$132,301
16	71	$1,863	$132,301
17	71	$2,050	$145,532
18	71	$2,050	$145,532
19	71	$2,050	$145,532
20	71	$2,050	$145,532
21	71	$2,050	$145,532
22	71	$2,255	$160,085
23	71	$2,255	$160,085
24	71	$2,255	$160,085
25	71	$2,255	$160,085
26	71	$2,255	$160,085
27	71	$2,480	$176,093
28	71	$2,480	$176,093
29	71	$2,480	$176,093
30	71	$2,480	$176,093
31	71	$2,480	$176,093
32	71	$2,728	$193,702
33	71	$2,728	$193,702
34	71	$2,728	$193,702
35	71	$2,728	$193,702
36	71	$2,728	$193,702
37	71	$3,001	$213,073
38	71	$3,001	$213,073
39	71	$3,001	$213,073
40	71	$3,001	$213,073
Cumulative Total			**$6,138,327**

Scenario 2: Total Fiscal Impact

Table 7 combines the results from the calculations depicted in Tables 3 and 6 to provide an estimate of the cumulative fiscal contribution that the proposed Carver Solar project would make to Isle of Wight County over its 40-year anticipated operational life under Scenario 2. As these data indicate, that cumulative total is approximately $9.2 million.

Table 7: Estimated Cumulative County Revenue from the Proposed Carver Solar Project over 40 Years under Scenario 2

County Real Estate Tax	$3,093,652
County Revenue from Revenue Share Ordinance	$6,138,327
TOTAL Cumulative Revenue over 40 Years[28]	**$9,231,979**

Current Agricultural Use

This section provides a benchmark for the previous estimates of the economic contribution that the proposed Carver Solar project would make to Isle of Wight County by estimating the economic and fiscal contribution that the site makes to the county in its current agricultural use.

Assumptions

The analysis is based on the following assumptions:

- The proposed Carver Solar project would be situated on an approximately 596-acre tract of land, of which about half is timberland and the other half is used for the agricultural production of corn, soybeans, cotton, and peanuts.[29]
- The current assessment value of the affected acreage is approximately $773,325.[30]

Results – Economic Impact

Applying these assumptions in the IMPLAN model results in the following estimates of annual economic impact. As shown in Table 8, in an agricultural and timber production use, the proposed Carver Solar project site directly supports approximately: 1) 2 jobs, 2) $30,400 in labor income, and 3) $167,600 in economic output to Isle of Wight County.

Taking into account the economic ripple effects that direct impact generates, on average, the total annually supported impact on Isle of Wight County is approximately: 1) 3 jobs, 2) $58,400 in labor income, and 3) $236,600 in economic output.

[28] Estimated revenue does not include voluntary payments associated with a siting agreement, which is subject to negotiation between Open Road Renewables and Isle of Wight County.
[29] Data Source: Open Road Renewables.
[30] Data Source: Derived from Isle of Wight County's Real Estate Assessment database. Excludes value of existing structures as they are assumed to be outside of the project footprint.

Table 8: Total Estimated Annual Economic Impact of the Carver Solar Project Site on Isle of Wight County – Current Agricultural Use

Economic Impact	Employment	Labor Income	Output
1st Round Direct Economic Activity	2	$30,400	$167,600
2nd Round Indirect and Induced Economic Activity	1	$28,000	$69,000
Total Economic Activity	**3**	**$58,400**	**$236,600**

Results – Fiscal Impact

Table 9 details the estimated tax revenue that the proposed Carver Solar site generates for Isle of Wight County in its current agricultural use. As the data in Table 9 indicate, the current county real estate tax revenue from the project site is estimated to be approximately $6,573 per year, for a cumulative total of approximately $262,931 over 40 years.

Table 9: Estimated County Revenue Generated by the Proposed Carver Solar Project Site over 40 Years from Real Estate Taxes – Current Agricultural Use

Estimated Assessed Value of Property – Agricultural Use[31]	$773,325
Isle of Wight County Current Real Estate Tax Rate	0.0085
Estimated Annual County Real Estate Tax – Agricultural Use	$6,573
Total Cumulative Revenue over 40 years	**$262,931**

**Totals may not sum due to rounding.*

The estimates provided in this report are based on the best information available and all reasonable care has been taken in assessing that information. However, because these estimates attempt to foresee circumstances that have not yet occurred, it is not possible to provide any assurance that they will be representative of actual events. These estimates are intended to provide a general indication of likely future outcomes and should not be construed to represent a precise measure of those outcomes.

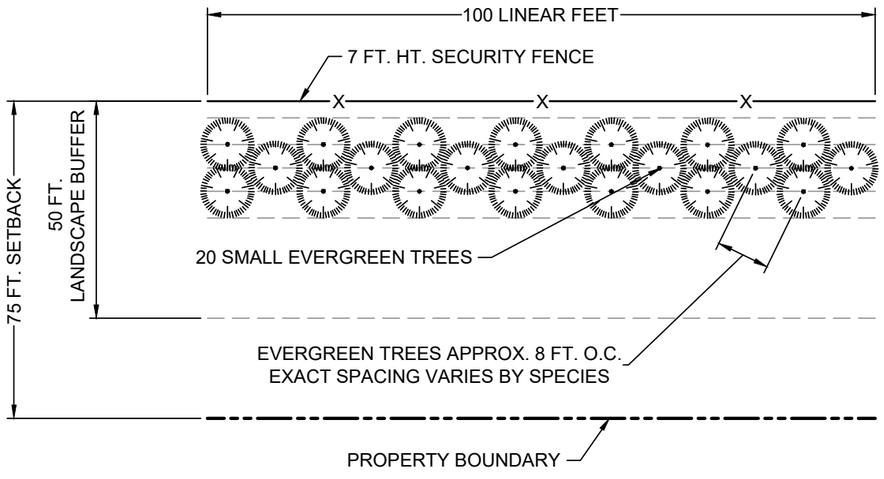
[31] Data Source: Derived from Isle of Wight County's Real Estate Assessment database. Excludes value of existing structures as they are assumed to be outside of the project footprint.

PROJECT	ACRES IN PANELS	LOCATION	% OF TOTAL FARMLAND	TOTAL MW	APPROVAL DATE
Woodland	180 +/-	Longview	0.2%	20	2015
Solidago	170 +/-	Redhouse	0.2%	20	2018
Ho-Fel	330 +/-	Lees Mill	0.4%	55	2019
Windsor PV1	630 +/-	Windsor	0.8%	85	2019; amended in 2021
Cavalier	450	Hardy	0.6%	240	2021
Nuby Run	20	Orbit	0.02%	2	2022
Carver (Proposed)	637	Windsor	0.8%	71	In Review
TOTAL	**2,417 +/-**		**3.02%**	**493**	

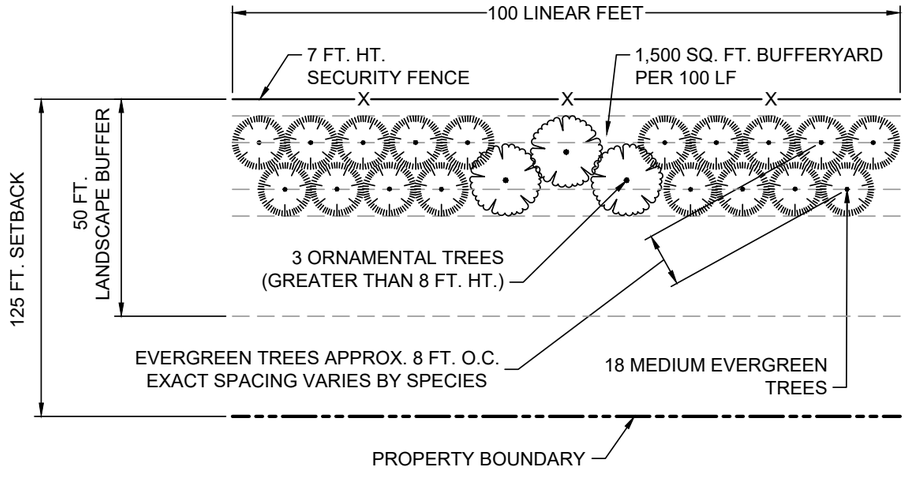
CARVER SOLAR FACILITY LANDSCAPING

FRONTAGE ZONE LANDSCAPING

APPLY TO PUBLIC ROADWAYS WITH ROW GREATER OR LESSER THAN 50 FEET



BUFFER ZONE LANDSCAPING - ABUTTING RESIDENTIAL PARCELS



LANDSCAPE POINTS BY BUFFER TYPE

FRONTAGE ZONE

LANDSCAPE POINTS PER 100 LINEAR FEET

REQUIRED: 75

PROVIDED: 101

7 PTS PER ORNAMENTAL TREE (<8 FT. HT.) × 3 = 21

10 PTS. PER SMALL EVERGREEN TREES (<7 FT. HT.) × 8 = 80

ABUTTING RESIDENTIAL PARCELS

LANDSCAPE POINTS PER 500 SQUARE FEET

REQUIRED: 120

PROVIDED: 132 (396 PER 100 LF OR 1,500 SF)

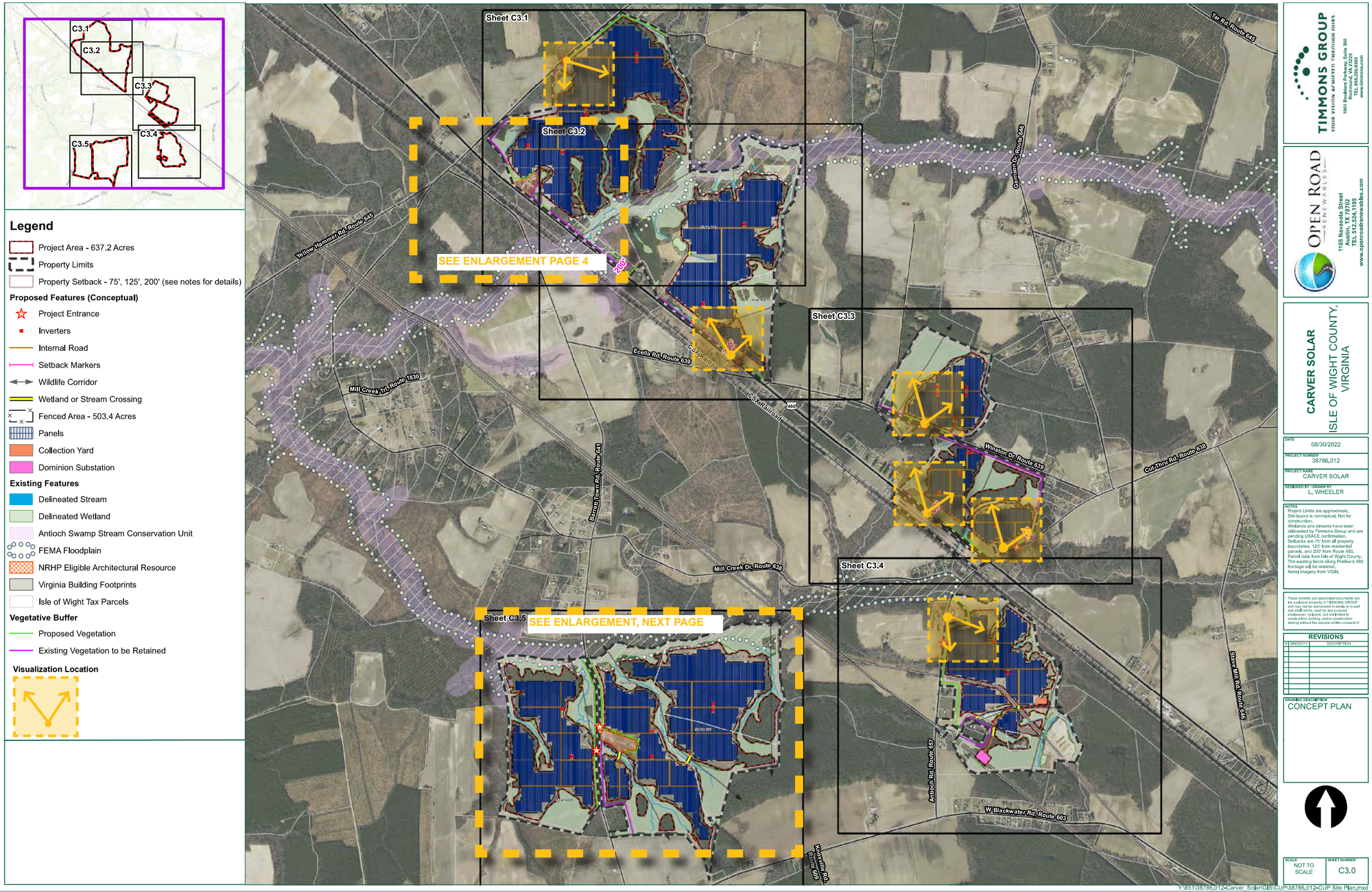
12 PTS. PER ORNAMENTAL TREE (>8 FT. HT.) × 3 = 36

20 PTS. PER MEDIUM EVERGREEN TREES (7-10 FT. HT.) × 18 = 360

CONCEPT PLANT LIST: FRONTAGE ZONE			
BOTANICAL NAME	COMMON NAME	MINIMUM HEIGHT AT PLANTING	TYPICAL HEIGHT AT MATURITY
EVERGREEN TREES			
ILEX X 'CONAF' OAKLEAF	RED HOLLY/OAKLEAF HOLLY	4 FT.	12-15 FT.
ILEX X MARY NELL	MARY NELL HOLLY	4 FT.	12-15 FT.
JUNIPERUS VIRGINIANA 'BRODIE'	EASTERN RED CEDAR	4 FT.	10-15 FT.
MYRICA CERIFERA	SOUTHERN WAX MRYTLE	4 FT.	10-15 FT.
THUJA OCCIDENTALIS 'TECHNY'	EASTERN ARBORVITAE	4 FT.	10-15 FT.

CONCEPT PLANT LIST: BUFFER ZONE			
BOTANICAL NAME	COMMON NAME	MINIMUM HEIGHT AT PLANTING	TYPICAL HEIGHT AT MATURITY
EVERGREEN TREES			
ILEX X 'CONAF' OAKLEAF	RED HOLLY/OAKLEAF HOLLY	4 FT.	12-15 FT.
ILEX X MARY NELL	MARY NELL HOLLY	4 FT.	12-15 FT.
JUNIPERUS VIRGINIANA 'BRODIE'	EASTERN RED CEDAR	4 FT.	10-15 FT.
MYRICA CERIFERA	SOUTHERN WAX MRYTLE	4 FT.	10-15 FT.
THUJA OCCIDENTALIS 'TECHNY'	EASTERN ARBORVITAE	4 FT	10-15 FT.
ORNAMENTAL TREES			
AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	4 FT.	15-20 FT.
CHIONANTHUS VIRGINICA	FRINGETREE	4 FT.	12-20 FT.
MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	4 FT.	15-20 FT.

SEPTEMBER 1, 2022

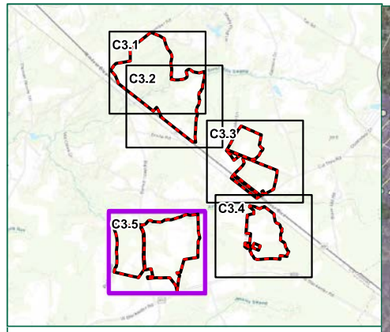


SEPTEMBER 1, 2022

CARVER SOLAR FACILITY

LANDSCAPE BUFFER VISUALIZATION – PHOTO LOCATIONS AND VIEWSHEDS

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.



Legend

- Project Area - 637.2 Acres
- Property Limits
- Property Setback - 75', 125', 200' (see notes for details)

Proposed Features (Conceptual)

- Project Entrance
- Inverters
- Internal Road
- Wildlife Corridor
- Wetland or Stream Crossing
- Fenced Area - 503.4 Acres
- Panels

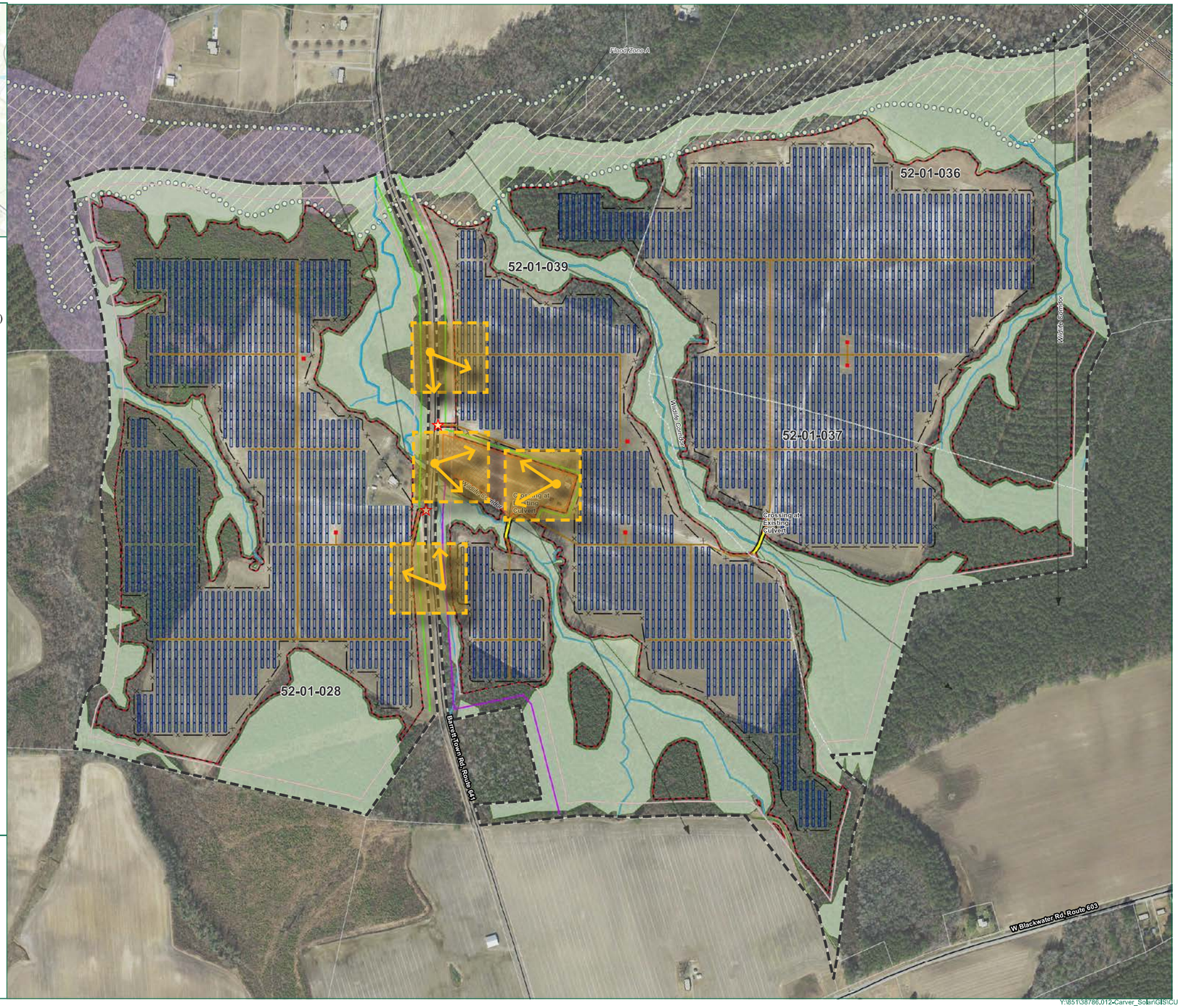
Existing Features

- Delineated Stream
- Delineated Wetland
- Antioch Swamp Stream Conservation Unit
- FEMA Floodplain
- NRHP Eligible Architectural Resource
- Virginia Building Footprints
- Isle of Wight Tax Parcels

Vegetative Buffer

- Proposed Vegetation
- Existing Vegetation to be Retained

Visualization Location



TIMMONS GROUP
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1001 Boulders Parkway, Suite 300
Richmond, VA 23225
TEL 804.200.6500
www.timmons.com

OPEN ROAD RENEWABLES
1105 Navasota Street
Austin, TX 78702
TEL 512.524.1195
www.openroadrenewables.com

CARVER SOLAR
ISLE OF WIGHT COUNTY, VIRGINIA

DATE	08/30/2022
PROJECT NUMBER	38786.012
PROJECT NAME	CARVER SOLAR
DESIGNED BY / DRAWN BY	L. WHEELER

NOTES
Project Limits are approximate.
Site layout is conceptual. Not for construction.
Wetlands and streams have been delineated by Timmons Group and are pending USACE confirmation.
Setbacks are 75' from all property boundaries, 125' from residential parcels, and 200' from Route 460.
Parcel data from Isle of Wight County.
The existing fence along Prettlow's 460 frontage will be retained.
Aerial imagery from VGIN.

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REVISIONS

#	MM/DD/YY	DESCRIPTION

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CONCEPT PLAN

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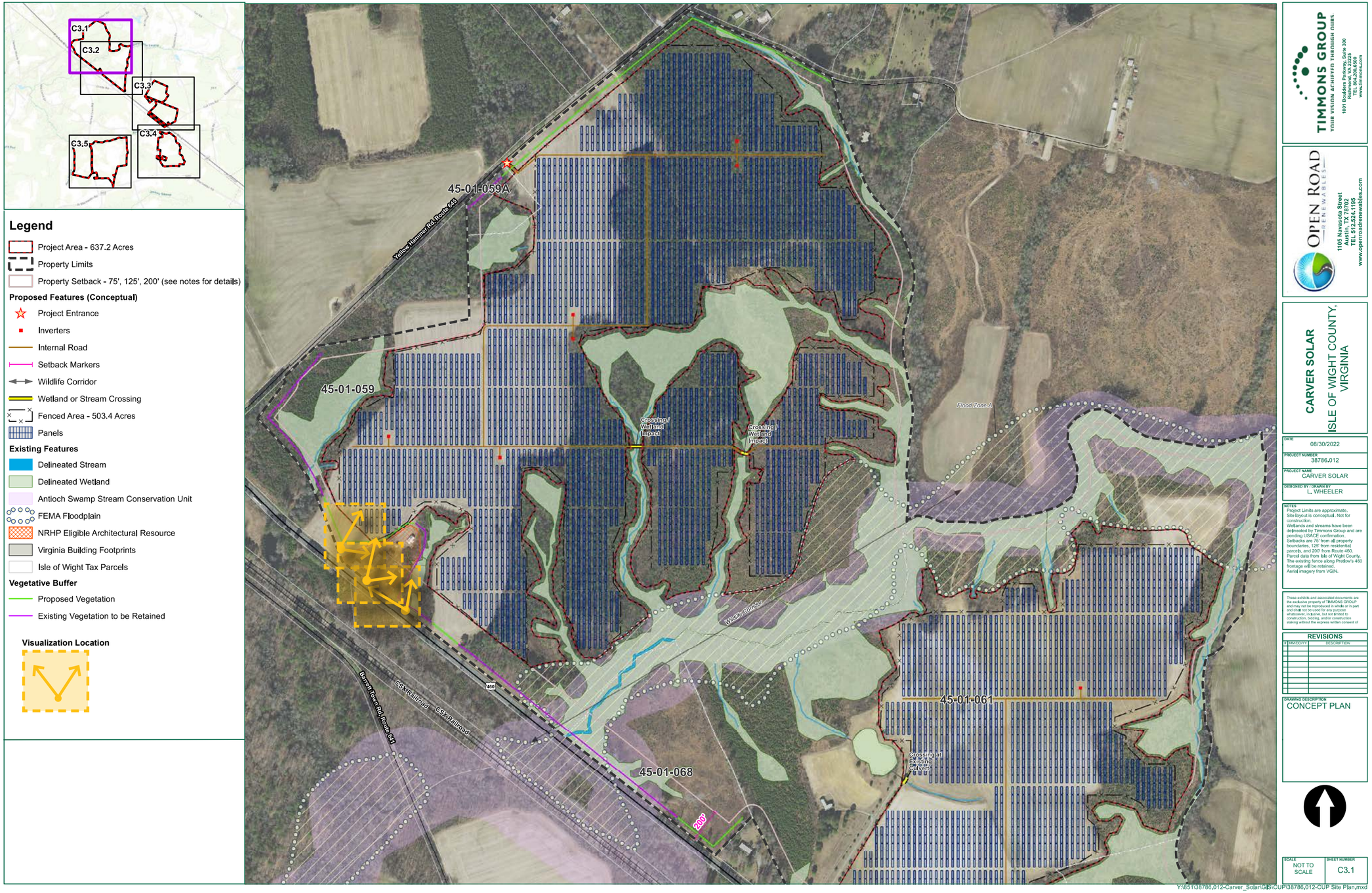
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SEPTEMBER 1, 2022

CARVER SOLAR FACILITY

LANDSCAPE BUFFER VISUALIZATION – ENLARGEMENT OF BARRET TOWN ROAD PHOTO LOCATIONS AND VIEWSHEDS

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www.openroadrenewables.com

CARVER SOLAR
ISLE OF WIGHT COUNTY, VIRGINIA

DATE: 08/30/2022
PROJECT NUMBER: 38786.012
PROJECT NAME: CARVER SOLAR
DESIGNED BY / DRAWN BY: L. WHEELER

NOTES
Project Limits are approximate.
Site layout is conceptual. Not for construction.
Wetlands and streams have been delineated by Timmons Group and are pending USACE confirmation.
Setbacks are 75' from all property boundaries, 125' from residential parcels, and 200' from Route 460.
Parcel data from Isle of Wight County.
The existing fence along Prudlow's 460 frontage will be retained.
Aerial imagery from VGIN.

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REVISIONS

#	MM/DD/YY	DESCRIPTION

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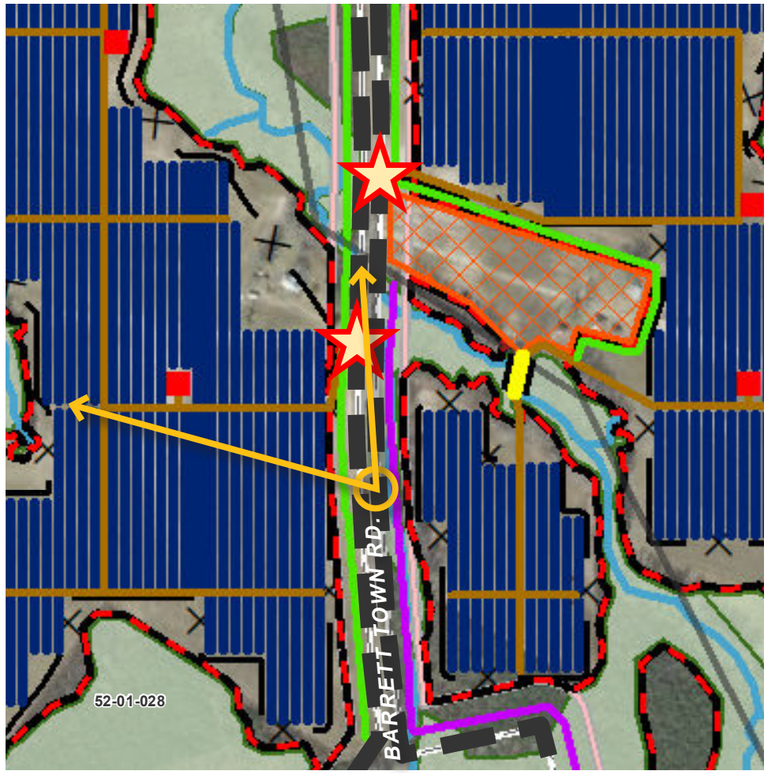
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SEPTEMBER 1, 2022

CARVER SOLAR FACILITY

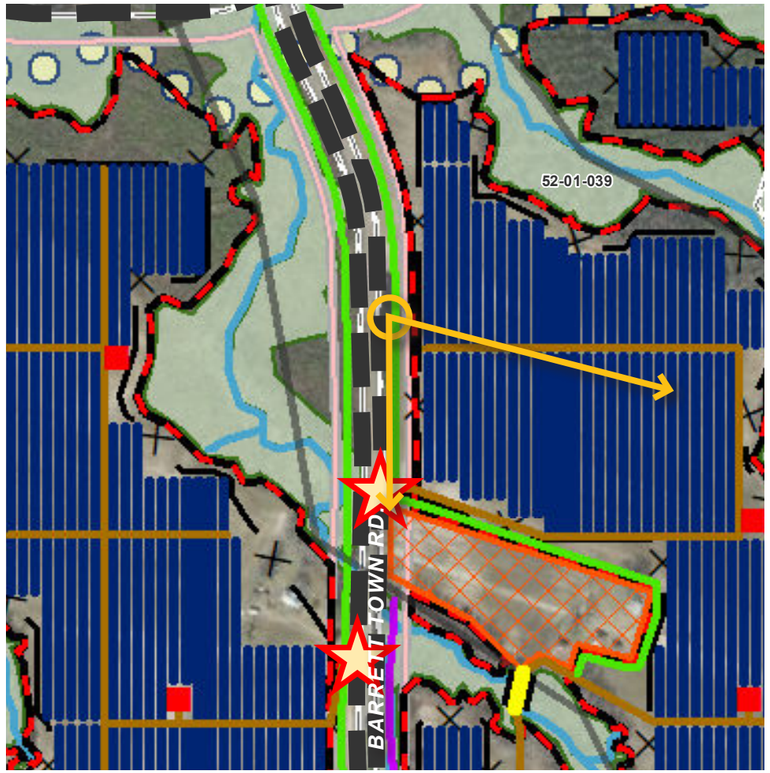
LANDSCAPE BUFFER VISUALIZATION – ENLARGEMENT OF WARWICK ROAD PHOTO LOCATIONS AND VIEWSHEDS

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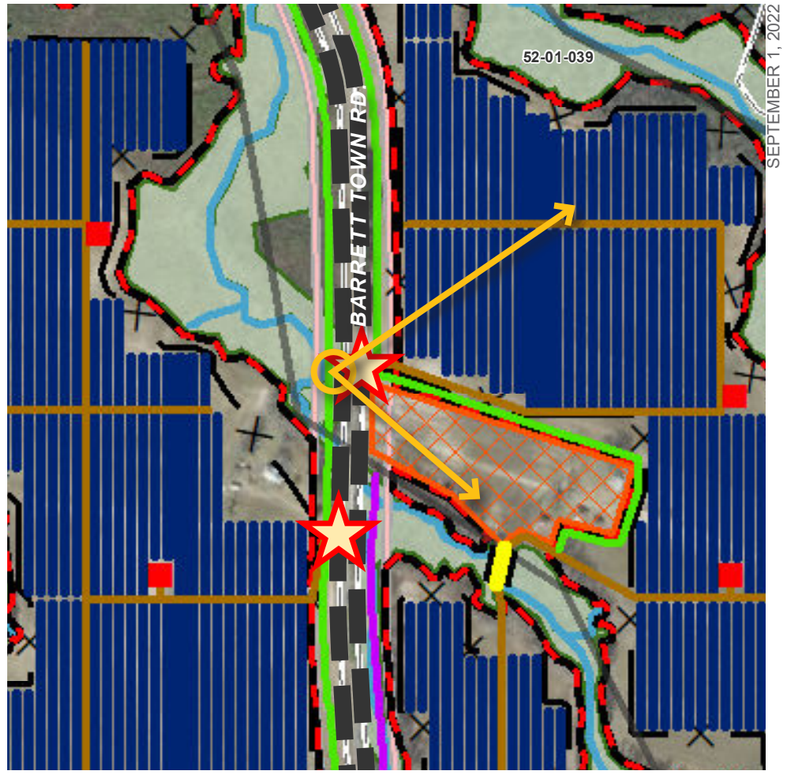
BARRET TOWN RD.
VIEW A

BUFFER ZONE
LANDSCAPING:
ABUTTING
RESIDENTIAL
PARCELS



BARRET TOWN RD.
VIEW B

BUFFER ZONE
LANDSCAPING:
ABUTTING
RESIDENTIAL
PARCELS



BARRET TOWN RD.
VIEW C

BUFFER ZONE
LANDSCAPING:
ABUTTING
RESIDENTIAL
PARCELS

PHOTO LOCATION
& VIEWSHED

Legend

- Project Study Limits - 937.3 Acres
- Property Setback - 75' & 125' from Residential Parcels
- Project Entrance
- Existing Substation
- Existing Transmission Line
- Transmission Line Easement
- Fence
- Panels
- Stream
- Wetland
- FEMA Floodplain
- Isle of Wight Tax Parcels

Vegetative Buffer

- Proposed Vegetation
- Existing Vegetation to be Retained

5' Topographic Contours

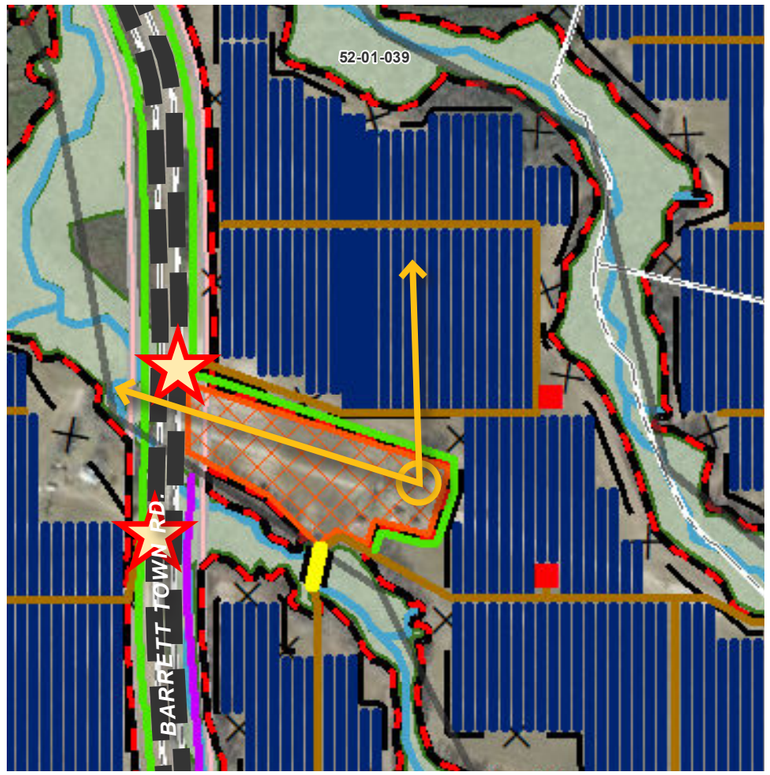
- Major
- Minor

SEPTEMBER 1, 2022

CARVER SOLAR FACILITY

LANDSCAPE BUFFER VISUALIZATION – PHOTO LOCATIONS AND VIEWSHEDS

TIMMONS GROUP
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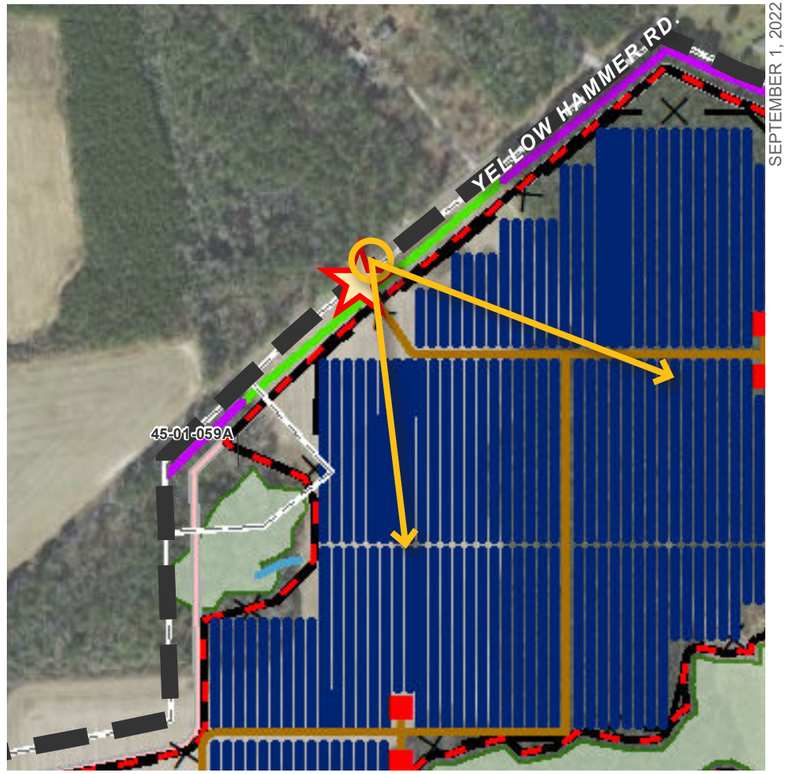
BARRET TOWN RD.
VIEW D

BUFFER ZONE
LANDSCAPING:
ABUTTING
RESIDENTIAL
PARCELS



ANTIOCH RD.

BUFFER ZONE
LANDSCAPING:
ABUTTING
RESIDENTIAL
PARCELS



YELLOW HAMMER RD.

BUFFER ZONE
LANDSCAPING: *ABUTTING*
RESIDENTIAL
PARCELS

SEPTEMBER 1, 2022

PHOTO LOCATION
& VIEWSHED

Legend

- Project Study Limits - 937.3 Acres
- Property Setback - 75' & 125' from Residential Parcels
- Project Entrance
- Existing Substation
- Existing Transmission Line
- Transmission Line Easement
- Fence
- Panels
- Stream
- Wetland
- FEMA Floodplain
- Isle of Wight Tax Parcels

Vegetative Buffer

- Proposed Vegetation
- Existing Vegetation to be Retained

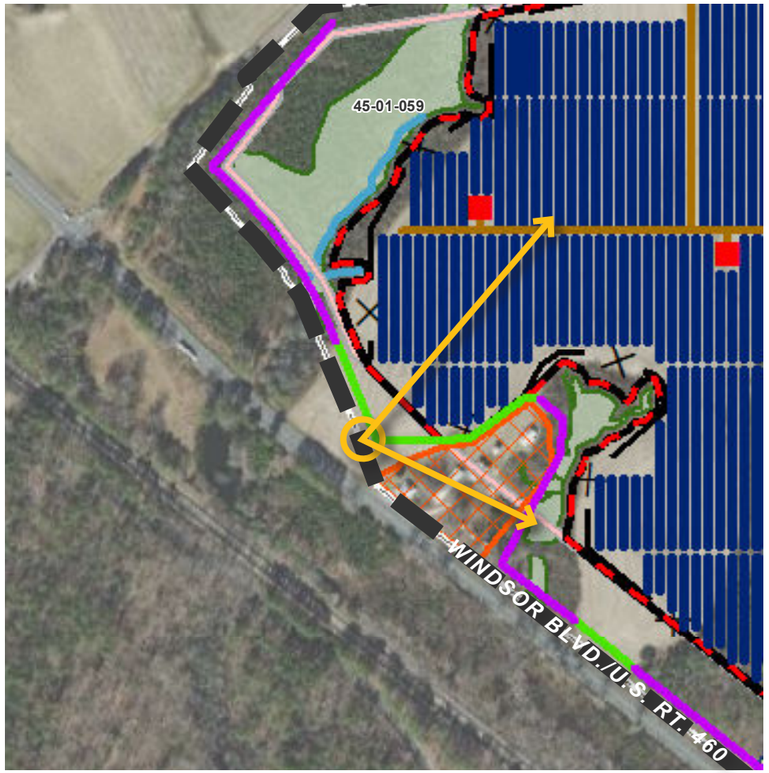
5' Topographic Contours

- Major
- Minor

CARVER SOLAR FACILITY

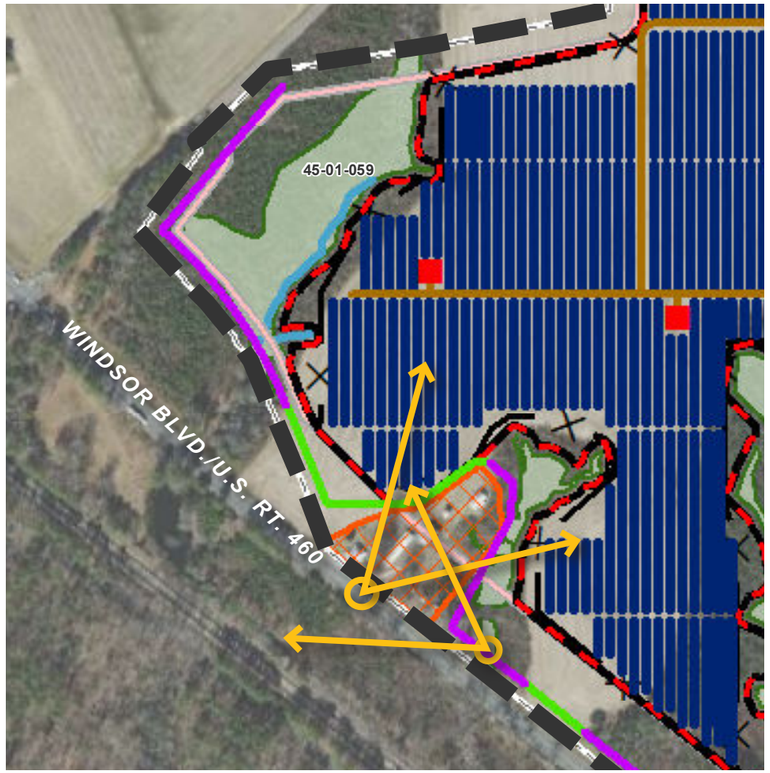
LANDSCAPE BUFFER VISUALIZATION – PHOTO LOCATIONS AND VIEWSHEDS

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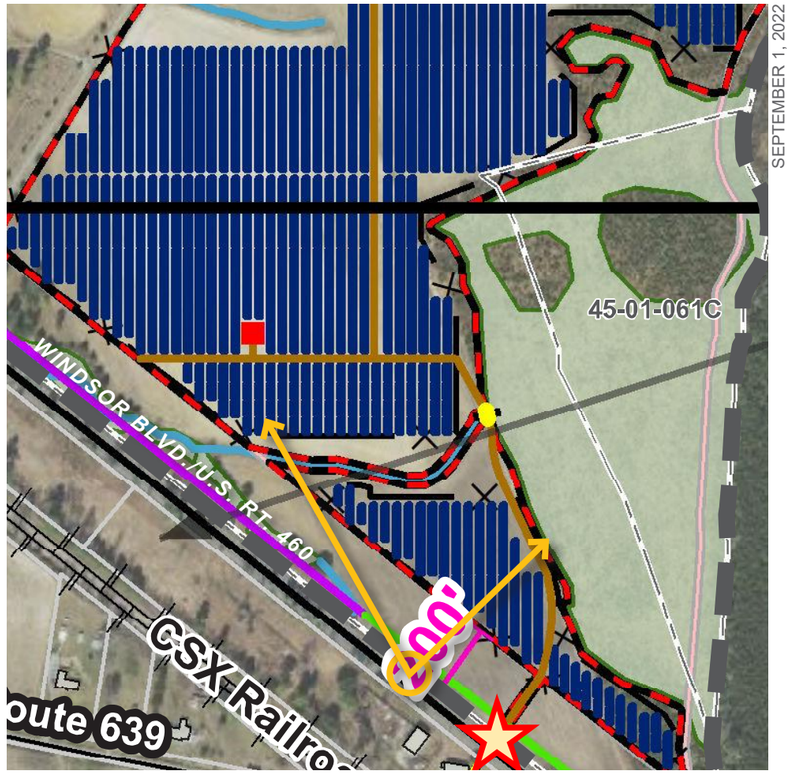
WINDSOR BLVD
VIEW A

FRONTAGE ZONE
LANDSCAPING



WINDSOR BLVD
VIEWS B AND C

NO LANDSCAPING
PANELS NOT VISIBLE



WINDSOR BLVD
VIEW D

FRONTAGE ZONE
LANDSCAPING

SEPTEMBER 1, 2022

PHOTO LOCATION
& VIEWSHED

Legend

- Project Study Limits - 937.3 Acres
- Property Setback - 75' & 125' from Residential Parcels
- Project Entrance
- Existing Substation
- Existing Transmission Line
- Transmission Line Easement
- Fence
- Panels
- Stream
- Wetland
- FEMA Floodplain
- Isle of Wight Tax Parcels

Vegetative Buffer

- Proposed Vegetation
- Existing Vegetation to be Retained

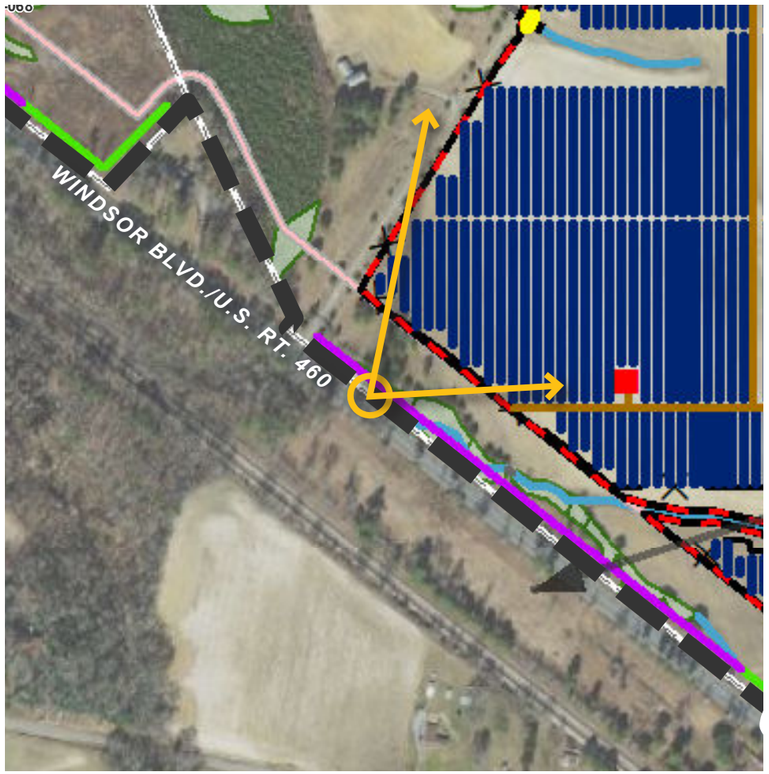
5' Topographic Contours

- Major
- Minor

CARVER SOLAR FACILITY

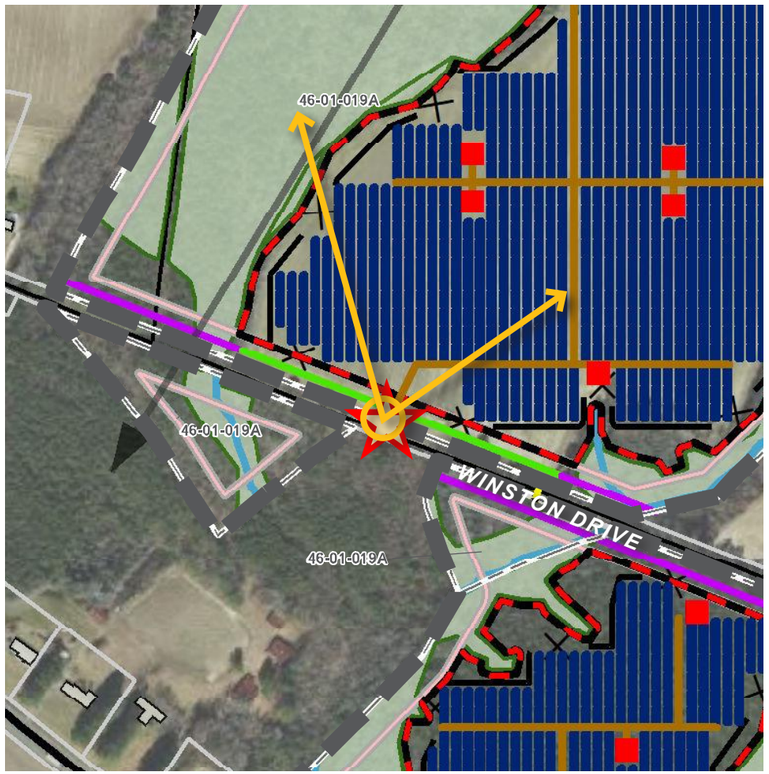
LANDSCAPE BUFFER VISUALIZATION – PHOTO LOCATIONS AND VIEWSHEDS

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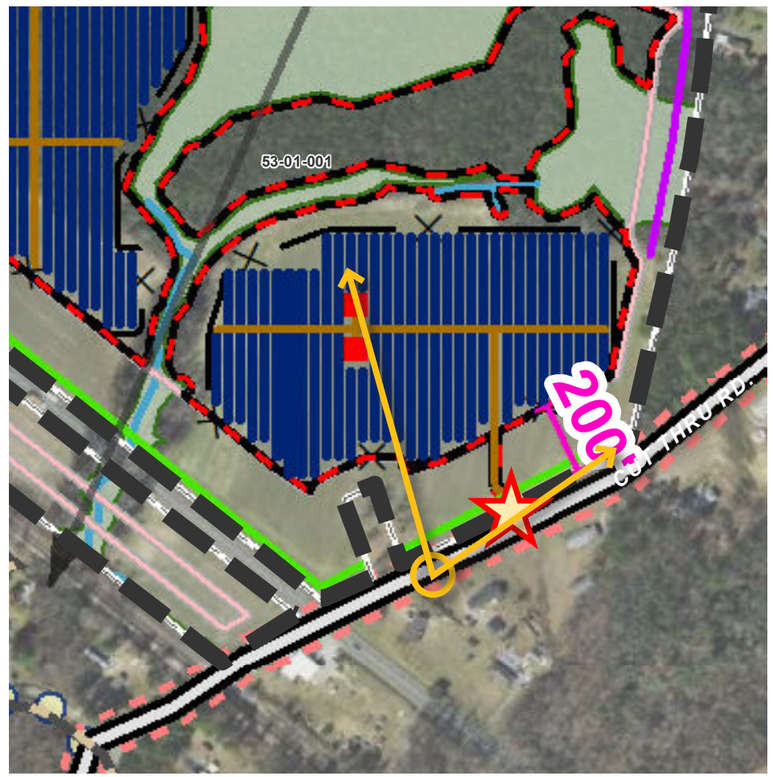
WINDSOR BLVD VIEW E

FRONTAGE ZONE
LANDSCAPING



WINSTON DR.

BUFFER ZONE
LANDSCAPING:
ABUTTING
RESIDENTIAL
PARCELS



CUT THRU RD.

BUFFER ZONE
LANDSCAPING:
ABUTTING
RESIDENTIAL
PARCELS

PHOTO LOCATION
& VIEWSHED

Legend

- Project Study Limits - 937.3 Acres
- Property Setback - 75' & 125' from Residential Parcels
- Project Entrance
- Existing Substation
- Existing Transmission Line
- Transmission Line Easement
- Fence
- Panels
- Stream
- Wetland
- FEMA Floodplain
- Isle of Wight Tax Parcels

Vegetative Buffer

- Proposed Vegetation
- Existing Vegetation to be Retained

5' Topographic Contours

- Major
- Minor

SEPTEMBER 1, 2022

CARVER SOLAR FACILITY

LANDSCAPE BUFFER VISUALIZATION – PHOTO LOCATIONS AND VIEWSHEDS

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BARRET TOWN RD. VIEW A

BUFFER ZONE LANDSCAPING: *ABUTTING RESIDENTIAL PARCELS*



EXISTING



AT PLANTING



AT MATURITY (10+ YEARS)

SEPTEMBER 1, 2022

BARRET TOWN RD. VIEW B

BUFFER ZONE LANDSCAPING: *ABUTTING RESIDENTIAL PARCELS*



EXISTING



AT PLANTING



AT MATURITY (10+ YEARS)

BARRET TOWN RD. VIEW C

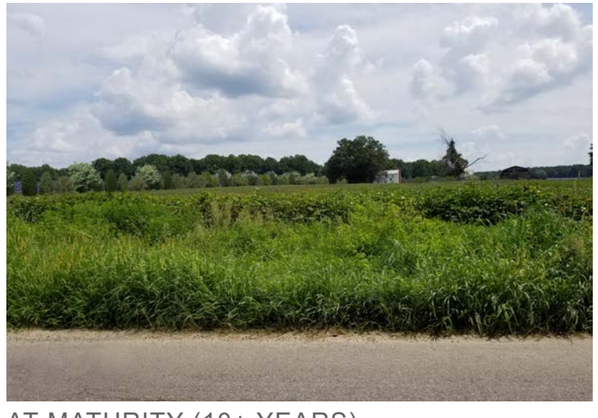
BUFFER ZONE LANDSCAPING: *ABUTTING RESIDENTIAL PARCELS*



EXISTING



AT PLANTING



AT MATURITY (10+ YEARS)

CARVER SOLAR FACILITY

LANDSCAPE BUFFER VISUALIZATION – BEFORE AND AFTER BUFFER INSTALLATION

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

BARRET TOWN RD. VIEW D

BUFFER ZONE LANDSCAPING: *ABUTTING RESIDENTIAL PARCELS*



EXISTING



AT PLANTING



AT MATURITY (10+ YEARS)

SEPTEMBER 1, 2022

ANTIOCH RD.

BUFFER ZONE LANDSCAPING: *ABUTTING RESIDENTIAL PARCELS*



EXISTING



AT PLANTING



AT MATURITY (10+ YEARS)

YELLOW HAMMER RD.

BUFFER ZONE LANDSCAPING: *ABUTTING RESIDENTIAL PARCELS*



EXISTING



AT PLANTING



AT MATURITY (10+ YEARS)

CARVER SOLAR FACILITY

LANDSCAPE BUFFER VISUALIZATION – BEFORE AND AFTER BUFFER INSTALLATION

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

WINDSOR BLVD. VIEW A

FRONTAGE ZONE
LANDSCAPING



EXISTING



AT PLANTING



AT MATURITY (10+ YEARS)

SEPTEMBER 1, 2022

WINDSOR BLVD. VIEWS B AND C

NO LANDSCAPING
PANELS NOT VISIBLE



EXISTING VIEW A



EXISTING VIEW B

WINDSOR BLVD. VIEW D

FRONTAGE ZONE
LANDSCAPING



EXISTING



AT PLANTING



AT MATURITY (10+ YEARS)

CARVER SOLAR FACILITY

LANDSCAPE BUFFER VISUALIZATION – BEFORE AND AFTER BUFFER INSTALLATION

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

WINDSOR BLVD VIEW E

FRONTAGE ZONE LANDSCAPING



EXISTING



AT PLANTING



AT MATURITY (10+ YEARS)

SEPTEMBER 1, 2022

WINSTON DR.

BUFFER ZONE LANDSCAPING: *ABUTTING RESIDENTIAL PARCELS*



EXISTING



AT PLANTING



AT MATURITY (10+ YEARS)

CUT THRU RD.

BUFFER ZONE LANDSCAPING: *ABUTTING RESIDENTIAL PARCELS*



EXISTING



AT PLANTING



AT MATURITY (10+ YEARS)

CARVER SOLAR FACILITY

LANDSCAPE BUFFER VISUALIZATION – BEFORE AND AFTER BUFFER INSTALLATION

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

ORDINANCE NUMBER _____

AN ORDINANCE TO ISSUE A CONDITIONAL USE PERMIT FOR A 71 MW UTILITY SCALE SOLAR ENERGY GENERATION FACILITY AND SUBSTATION, ON 637 ACRES OF PROPERTY WITH TAX MAP PARCELS 52-01-028, 52-01-034, 52-01-035, 52-01-036, 45-01-059, 45-01-059A, 45-01-061,45-01-061B, 45-01-061C, 45-01-065, 45-01-068, 52-01-037, 52-01-039, 53-01-001, 53-01-003, 53-01-003M, 53-01-006, 53-01-022, 53-01-022E, AND 46-01-019AT

WHEREAS, Carver Solar I, LLC, applicant, and Carter R. Clements, Joyce G. Clements, Travis W. Williams, Lewis Clarence Lee Trust (Clarence Lee Lewis, Trustee), Joshua Pretlow, Jr., Garrison Farm Solar LLC, Delman Lew Carr Trust (Delman Lew Carr, Trustee), Chester G. Carr Trust (Glenn and Susan S. Carr, Trustees), Helene Johnson Hobbs, Joest Properties, LLC, Scott L. Thomason, Carla A. Thomason, James K. Edwards, Marsha F. Edwards, Cobb Land Limited Partnership, Troy L. Robinson, and Margaret F. Robinson, property owners, have requested approval of a conditional use permit for a 71 MW utility-scale solar energy facility and substation on 637 acres located on tax parcel numbers 52-01-028, 52-01-034, 52-01-035, 52-01-036, 45-01-059, 45-01-059A, 45-01-061,45-01-061B, 45-01-061C, 45-01-065, 45-01-068, 52-01-037, 52-01-039, 53-01-001, 53-01-003, 53-01-003M, 53-01-006, 53-01-022, 53-01-022E, and 46-01-019A, which land is depicted on Exhibit "B"; and,

WHEREAS, the procedural requirements of Appendix B, Zoning Ordinance, of the Code of Isle of Wight County, Virginia, 2005 (as amended), have been followed; and,

WHEREAS, in acting upon this request, the Planning Commission and Board of Supervisors have considered the matters enunciated in Section 15.2-2284 of the Code of Virginia (1950), as amended, and Section 1-1017 of the Isle of Wight County Zoning Ordinance with respect to the purposes stated in Code of Virginia (1950), as amended, Section 15.2-2200 and 15.2 2283; and,

WHEREAS, the Planning Commission has made a recommendation as stated in Exhibit "A;"

NOW, THEREFORE, BE IT ORDAINED by the Isle of Wight County Board of Supervisors of Isle of Wight County, Virginia, that:

Section 1. Exhibits.

Exhibit "A", "Planning Commission Recommendation", Exhibit "B", "Property Map", and Exhibit "C" Conditions which are attached hereto, are hereby incorporated as part of this ordinance.

Section 2. Findings.

The Board of Supervisors finds that the proposal for conditional use permit CUP-6-22, as submitted or modified with conditions herein, the expressed purpose of which is to permit a major utility service, is in conformity with the standards of the Isle of Wight County Zoning Ordinance, and that it will have no more adverse effects on the health, safety or comfort of persons living or working in or driving through the neighborhood, and will be no more injurious to property or improvements in the neighborhood than would any other use generally permitted in the same district, taking into consideration the location, type and height of buildings or structures, the type and extent of landscaping and screening on site and whether the use is consistent with any theme, action, policy or map of the Comprehensive Plan with the conditions set forth below.

These findings are based upon the consideration for the existing use and character of the property, the Comprehensive Plan, the suitability of the property for various uses, the trends of growth or

change, the current and future requirements of the community as to land for various purposes as determined by population and economic studies and other studies, the transportation requirements of the community, the requirements of airports, housing, schools, parks, playgrounds, recreation areas and other public services, the conservation of natural resources, the preservation floodplains, the preservation of agricultural and forestal land, the conservation of properties and their values, and the encouragement of the most appropriate use of land throughout the County.

These findings are based upon a determination that most reasonable and limited way of avoiding the adverse impacts of a major utility service is by the imposition of the conditions provided herein.

Section 3. Permit Granted.

The conditional use permit for the property be, and is hereby approved for the property, subject to the attached conditions in Exhibit "C" and the general conditions set forth in Section 4 hereof. The conditional use permit specifically allows for a major utility service in compliance with the County Zoning Ordinance.

Section 4. Severability.

It is the intention of the Board of Supervisors that the provisions, sections, paragraphs, sentences, clauses, and phrases of this ordinance are severable; and if any phrase, clause, sentence, paragraph, section, and provision of this ordinance hereby adopted shall be declared unconstitutional or otherwise invalid by the valid judgement or decree of a court of competent jurisdiction, such unconstitutionality or invalidity shall not affect any of the remaining phrase, clauses, sentences, paragraphs, sections, and provisions of this ordinance, to the extent that they can be enforced notwithstanding such determination

Section 5. Effective Date

This ordinance shall be effective upon passage and shall not be published or codified. The conditional use authorized by this permit shall be implemented within two (2) years from that date of approval by the Board of Supervisors and shall terminate if not initiated within that time period.

This ordinance shall be effective upon passage and shall not be published or codified.

DATE: _____

READ AND PASSED: _____
Chairman, Board of Supervisors

TESTE: _____
Clerk, Board of Supervisors

Approved as to Form:

_____
Robert W. Jones Jr, County Attorney

EXHIBIT A

RESOLUTION NUMBER PC-22-15

**ISLE OF WIGHT COUNTY PLANNING COMMISSION
A RESOLUTION TO PRESENT A REPORT AND RECOMMENDATION
TO THE BOARD OF SUPERVISORS RELATING TO CONDITIONAL USE PERMIT
REQUEST CUP-06-22 TO ALLOW A MAJOR UTILITY SERVICE, SPECIFICALLY A 71 MW
UTILITY SCALE SOLAR ENERGY GENERATION FACILITY AND SUBSTATION, ON 637
ACRES OF PROPERTY WITH TAX MAP PARCELS 52-01-028, 52-01-034, 52-01-035, 52-01-036,
45-01-059, 45-01-059A, 45-01-061,45-01-061B, 45-01-061C, 45-01-065, 45-01-068, 52-01-037, 52-01-
039, 53-01-001, 53-01-003, 53-01-003M, 53-01-006, 53-01-022, 53-01-022E, AND 46-01-019A**

WHEREAS, Carver Solar I, LLC, applicant, and Carter R. Clements, Joyce G. Clements, Travis W. Williams, Lewis Clarence Lee Trust (Clarence Lee Lewis, Trustee), Joshua Pretlow, Jr., Garrison Farm Solar LLC, Delman Lew Carr Trust (Delman Lew Carr, Trustee), Chester G. Carr Trust (Glenn and Susan S. Carr, Trustees), Helene Johnson Hobbs, Joest Properties, LLC, Scott L. Thomason, Carla A. Thomason, James K. Edwards, Marsha F. Edwards, Cobb Land Limited Partnership, Troy L. Robinson, and Margaret F. Robinson, property owners, has requested approval of a conditional use permit for a 71 MW utility-scale solar energy facility and substation on 637 acres located on tax parcel numbers 52-01-028, 52-01-034, 52-01-035, 52-01-036, 45-01-059, 45-01-059A, 45-01-061,45-01-061B, 45-01-061C, 45-01-065, 45-01-068, 52-01-037, 52-01-039, 53-01-001, 53-01-003, 53-01-003M, 53-01-006, 53-01-022, 53-01-022E, and 46-01-019A situated in Isle of Wight County; and

WHEREAS, the specific request is to permit a major utility service, specifically a utility-scale solar energy generation facility and substation, in accordance with sections 1-1017 and 5-5003 of the Zoning Ordinance;

WHEREAS the procedural requirements for the consideration of this request by the Planning Commission have been met.

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of Isle of Wight County, that:

Section 1. Findings.

✓ A. The Isle of Wight County Planning Commission finds that the proposed conditional use permit is reasonable and has considered the following factors and finds that the proposed use does not conflict with:

1. the existing use and character of property within the County;

2. the Comprehensive Plan;

3. the suitability of the property for various uses;

4. the trends of growth or change;

5. the current or future requirements of the community as to land for various purposes as determined by population and economic studies and other studies;

6. the transportation requirements of the community;

7. the requirements for airports, housing, schools, parks, playgrounds, recreation areas and other public services;

8. the conservation of natural resources;

9. the preservation of floodplains;

10. the preservation of agricultural and forestal land;

11. the conservation of properties and their values; and

12. the encouragement of the most appropriate use of land throughout the County.

____ B. The Isle of Wight County Planning Commission does not find that the proposed use is reasonable based on the consideration of the factors listed herein.

Section 2. Recommendation to Board of Supervisors.

The Planning Commission recommends to the Board of Supervisors that the request, CUP-06-22, be:

___ a. Granted as submitted, and that the Board of Supervisors adopt the proposed Ordinance without modification.

___ b. Denied, and that Board of Supervisors not adopt the proposed Ordinance.

__✓__ c. Granted with the specific recommended conditions in the attached exhibit, and that the Board of Supervisors adopt the proposed Ordinance with such conditions.

DATE: NOV 22, 2022

READ AND PASSED: _____
Chairman, Isle of Wight County Planning Commission

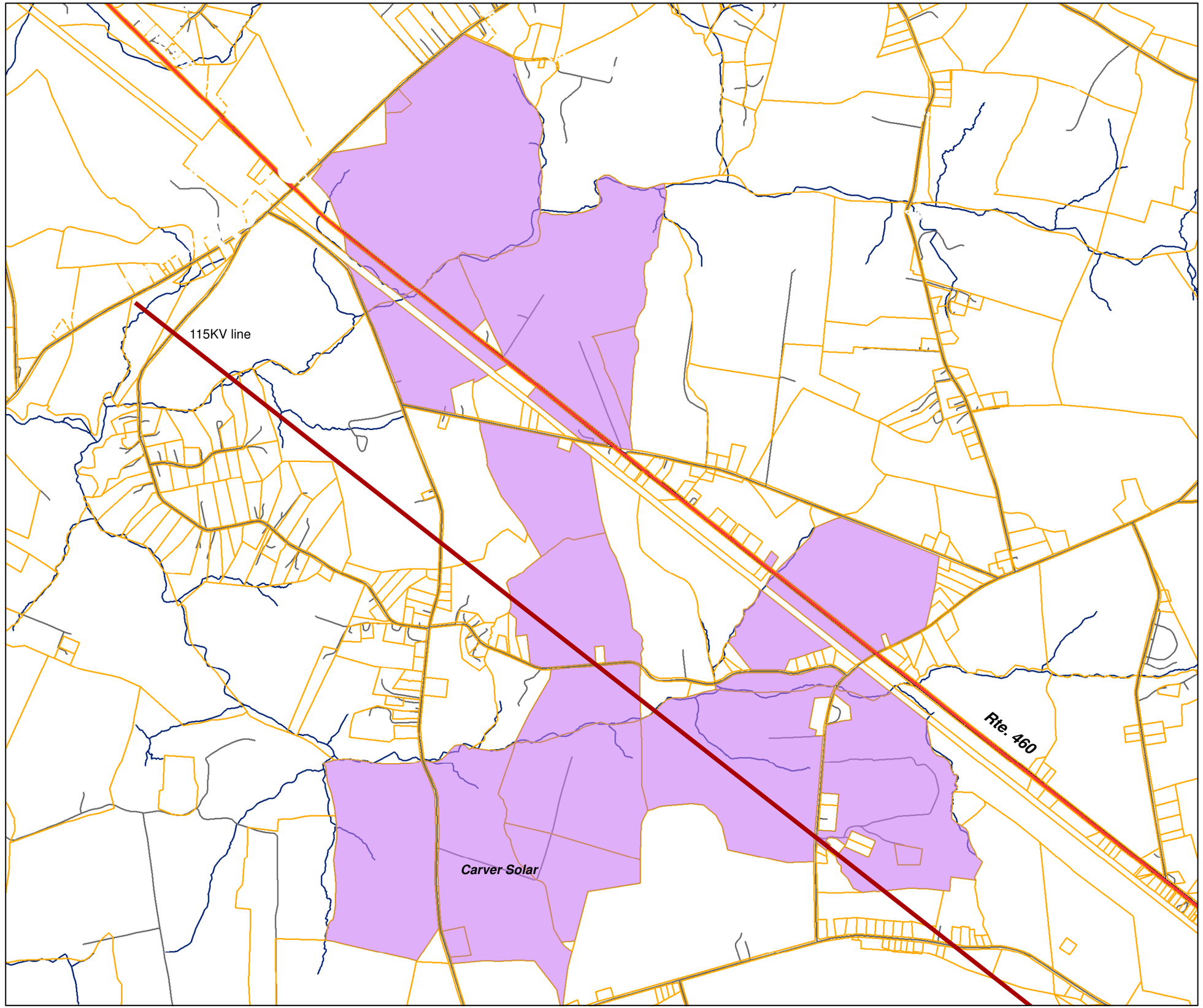
TESTE: _____
Secretary, Isle of Wight County Planning Commission

Approved as to Form:

_____
Robert W. Jones, Jr., County Attorney

CUP-6-22 Carver Solar Property Map

EXHIBIT B



N

EXHIBIT C

CUP-6-22 Carver Solar Energy Generation Facility Conditions of Approval
Revised 2/16/2023

1. The portion of the subject property supporting solar panels shall be enclosed by security fencing of a type that is harmonious with the rural, agricultural, and historical character of the County while meeting federal and state regulations for solar electric generating facility fencing as determined by the Zoning Administrator adjacent to all public rights-of-way, residential property, properties eligible for listing on the National Register of Historic Places, and civic uses prior to final site plan approval.
2. Fencing shall be placed around the solar arrays, inverters, and substation only and not the whole site in order to provide wildlife corridors.
3. In order to minimize the visual impacts to historic, civic and residential properties, staff recommends that all solar arrays, inverters, substations and other associated structures be subject to a minimum 200 foot setback from these structures if part of the project and 200 feet from the property line of these properties if outside the project.
4. The enhanced landscape buffer plan proposed on the concept plan exhibit is conceptual only at this time. The landscape buffer design and required plantings will be reviewed in detail for approval during site plan review and, at minimum, must include a triple row of staggered evergreen and deciduous species meeting the minimum specifications of the landscaping ordinance and of varying heights at maturity where existing vegetation is not being retained. Trees shall be planted no more than ten (10) feet on center.
5. The applicant shall permanently preserve and maintain existing and newly installed buffer landscaping and shall not clear or cut live trees within required setbacks or buffer zones except as necessary to avoid shading of solar panels as approved by the Zoning Administrator.
6. Excluding the bufferyards described above, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a vegetative cover. This vegetative cover will be managed with mowing and/or grazing.
7. The applicant shall meet any additional delineation and buffer requirements specified by the Virginia Department of Historic Resources prior to receiving final site plan approval.
8. The applicant shall submit an Emergency Response Plan at the time of site development plan application for review and approval by the County, which shall detail fire suppression methods that will be immediately deployed during both construction and operation of the facility. The plan shall include a training program to be provided to emergency responders about safety for on-site incident response. Initiation and frequency of training will be coordinated between the Department of Emergency Services and the facility operator. The applicant shall install a Knox Box or other remote access technology at the facility to ensure emergency responders have access to the facility should the need arise.
9. Hours of operation for construction activities to be limited to 7:00 am to 6:00 pm Monday through Friday and 7:00 am to 5:00 pm on Saturdays. No construction is to occur on Sundays.
10. Topsoil will be conserved on site.
11. The applicant shall reimburse the County for reasonable costs related to retaining such third-party inspectors as deemed necessary for project inspections.

12. Prior to site plan approval, the Applicant shall either adjust the site plan to avoid areas that were determined potentially eligible for the National Register of Historic Places as part of the Phase 1 Archaeological Survey or shall undergo the appropriate Phase 2 close-interval testing to determine if any material is eligible for listing.
13. As part of the site plan review, the Applicant shall provide documentation that the selected panels and all power generating equipment onsite are "Tier 1" modules as established by the most recent "PV Module Tier 1 List" issued by Bloomberg NEF or a similar third-party analysis widely accepted in the solar industry. Additionally, the make and model of the selected panels and all power generating equipment initially installed and replaced on the site must qualify, for disposal purposes, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP).
14. There shall be a sign posted with the contact information for the local project liaison.
15. No salvage value be added to the decommissioning surety bond.
16. If the land area being leased was under crop cultivation prior to lease, it shall be maintained and cut annually during the growing season prior to August 1 until site construction begins.
17. The inverters shall be set back a minimum of 500 feet from all property lines.
18. The applicant shall make commercial best efforts to source US-made panels and other materials.
19. The applicant shall provide pollinator meadows.

Carver Solar
Additional Information for the Isle of Wight County Board of Supervisors
Submitted via email February 3rd, 2023

Electric and Magnetic Fields

Questions were raised about the strength of electric and magnetic fields or "EMF" that solar farms may generate and whether these fields will have any public health impacts, including to persons with battery-equipped medical implants. The information provided below responds to these questions.

EMF, which are emitted by all electric generating, transmission and end use devices such as cell phones, hair dryers, and washing machines, reduce with distance on an exponential basis, which means that each doubling of distance from the source results in a much larger decline in the EMF. Accordingly, the studies referenced below support the conclusion that the comprehensive set of conditions recommended by Staff and the Planning Commission, specifically the 500' inverter setbacks from property lines (Condition #17) and 200' equipment setbacks (Condition #3), will more than address any health concerns from EMF. In short, as with all sources of electricity, solar facilities like Carver will generate some EMF, but not enough to cause any public health impacts.

N.C. State University

N.C. State University published a research paper in 2017 called "Health and Safety Impacts of Solar Photovoltaics" a copy of which is provided as **Attachment 1**. The paper includes a section addressing EMF and concludes that a person outside a solar facility fence is not exposed to a material level of EMF from the solar facility, and there are no negative health impacts from the EMF produced by a solar facility. The paper includes the following information, which specifically addresses medical implants (see bold item below):

> "Someone outside of the fenced perimeter of a solar facility is not exposed to significant EMF from the solar facility. Therefore, there is no negative health impact from the EMF produced in a solar farm." (p. 14)
>
> "The wide use of electricity results in background levels of ELF ["extremely low frequency"] EMF in nearly all locations where people spend time – homes, workplaces, schools, cars, the supermarket, etc. A person's average exposure depends upon the sources they encounter, how close they are to them, and the amount of time they spend there." (p. 15)
>
> "[T]he average exposure to magnetic fields in the U.S. is estimated to be around one mG ["milligauss"] . . . ." (p. 15)

> "The strength of ELF-EMF present at the perimeter of a solar facility . . . is significantly lower than the typical American's average EMF exposure." (p. 15)
>
> "**Anyone relying on a medical device such as a pacemaker or other implanted device to maintain proper heart rhythm may have concern about the potential for a solar project to interfere with the operation of his or her device. However, there is no reason for concern because the EMF outside of the solar facility fence is less than 1/1000 of the level at which manufacturers test for ELF EMF interference, which is 1,000 mG**." **(p. 15)**

Expert Report on Carver

Carver retained Tommy Cleveland[1] to specifically investigate the potential EMF impact of Carver Solar. When assessing EMF, it is important to differentiate between the equipment that makes up a solar facility. Tommy Cleveland discusses all potential EMF-emitting equipment in his report, provided as **Attachment 2**, which includes (i) the solar panels that produce low-voltage DC (direct current) electricity, (ii) the inverters that convert that DC electricity into grid-synced AC (alternating current) electricity, (iii) the transformers located adjacent to the inverters that step up the 1,500-volt current emitted by the inverters to 34.5kV (kilo-volts) and (iv) the wires leaving the 34.5 kV side of the transformers that travel to the substation where the voltages makes its final conversion to match the 115 kV voltage of the existing transmission line.

The report concludes that the solar panels will emit no EMF, and the inverters are expected to emit EMF that returns to background levels at a distance of 50-100 feet away from the inverter. Furthermore, the report concludes that the wires between the inverters and transformers emit EMF that drops below background levels at 500ft, and finally the report concludes that the wires connecting the transformers to the substation, from an EMF perspective, will be identical to the electric distribution lines that travel along nearly every road in Isle of Wight County.

The report also includes the following, which reiterates the information specific to medical implants in the N.C. State University study:

> **"It is clear that someone with an implanted device could travel by and live next to the Carver Solar facility with zero risk of EMF from the PV facility impacting the function of the implanted device. The potential EMF the person could potentially experience from Carver Solar is negligible compared the strength and variety of EMF exposures throughout every day in typical residential and commercial buildings." (p. 3)**

[1] Tommy Cleveland is the author of several of N.C. State's solar photovoltaic reports including the 2017 report "Health and Safety Impacts of Solar Photovoltaics" cited within this document, and since mid-2017 has worked as a solar engineer at a firm that conducts interconnection commissioning of utility-scale solar facilities for utilities in North and South Carolina.

National Institutes of Health

The National Institutes of Health published a study in 2002 that addressed a number of questions about EMF.[2] Among them is the question: "Does EMF affect people with pacemakers or other medical devices?" The study concluded that "[e]xposure of workers with cardiac pacemakers should not exceed 1,000 mG." This is 1,000 times the strength of EMF expected at the property boundary of the Carver Solar facility.

[2] The study is available here: https://www.niehs.nih.gov/health/materials/electric_and_magnetic_fields_associated_with_the_use_of_electric_power_questions_and_answers_english_508.pdf

Property Values

Several members of the community have raised concerns that Carver will reduce the values of their properties and homes. There is an abundance of data that show that solar facilities with proper setbacks, screening, and siting have no negative property value impact on the neighbors. Therefore, we are confident that the Carver solar facility will not reduce the value of neighboring properties.

Once constructed, the Carver solar facility will (i) have a low profile, (ii) feature the largest setbacks of any project in Isle of Wight County and among the largest in the Commonwealth, (iii) be well-screened, (iv) have few lights, (v) operate without notable noise, (vi) generate little traffic and (vii) generate no odor or pollution. The only practical impact will be visual. To minimize the visual impact on neighbors and the general public, the Planning Commission and Staff have recommended (and Carver endorses) 200-foot setbacks from neighboring property lines.[3] They also have recommended the following proposed conditions:

> "The portion of the subject property supporting solar panels shall be enclosed by security fencing of a type that is harmonious with the rural, agricultural, and historical character of the County . . . ." (Condition #1, emphasis added)
>
> "The enhanced landscape buffer plan . . . must include a triple row of staggered evergreen and deciduous species meeting the minimum specifications of the landscaping ordinance and of varying heights at maturity where existing vegetation is not being retained. Trees shall be planted no more than ten (10) feet on center." (Condition #4, emphasis added)
>
> "The applicant shall permanently preserve and maintain existing and newly installed buffer landscaping and shall not clear or cut live tress within the required setbacks or buffer zones except as necessary to avoid shading of solar panels as approved by the Zoning Administrator." (Condition # 5, emphasis added)

Undesirable uses, like landfills (that bring heavy truck traffic and litter) and factories (that often operate 24/7 with noise, pollution, lights, and traffic) may reduce neighboring property values. Carver has none of these types of undesirable features. The information below confirms that, because of Carver's generally benign nature on its surroundings, it will not adversely affect neighbors' property values.

American Society of Farm Managers & Rural Appraisers[4]

The American Society of Farm Managers & Rural Appraisers or ASFMRA recently compiled the available studies on the subject of solar facilities and property values. The ASFMRA was created

[3] Carver requests the 125-foot setback in the zoning ordinance only for a single parcel adjacent to the new utility substation, with which the landowner of that parcel consents.

[4] The report can be found here:
https://www.asfmra.org/blogs/asfmra-press/2021/02/16/solars-impact-on-land-values

in 1929 and is the largest professional association for rural property land experts in the U.S. The compilation provides concise and reliable summaries of the findings of the leading researchers on the subject, including the University of Rhode Island, the University of Texas, the national advisory firm CohnReznick and North Carolina-based Kirkland Appraisals.

Expert Report on Carver

Carver retained Kirkland Appraisals to specifically investigate whether Carver is likely to negatively affect neighboring property values. Kirkland Appraisals, based in Raleigh, NC, is a member of the prestigious Appraisal Institute and has conducted assessments for similar utility-scale solar facilities in Virginia and North Carolina. It reviewed the plans for Carver, surveyed the project area, and conducted a "matched pair analysis" to assess any likely future effect on nearby property values. Kirkland Appraisals concluded that Carver "will have no impact on the value of adjoining or abutting properties and that the proposed use in in harmony with the area in which it is located." (p. 2). A copy of this report has already been provided to the County.

University of Rhode Island Study

As noted by the ASFMRA summary, researchers at the University of Rhode Island issued a report in 2020 about the property value impacts of solar facilities in Massachusetts and Rhode Island.[5] When the study came out, Carver's affiliate Open Road Renewables asked Cambridge, Massachusetts-based Synapse Energy Economics, Inc. to summarize the results of the study in a short report. That report explains that the university researchers "found that solar facilities in rural areas did not have a statistically significant effect on the sale prices of nearby homes." (p. 2) For purposes of the study, "rural" areas were defined as those with a population density of less than 850 persons per square mile. Isle of Wight County has a population density of about 120 persons per square mile (population of about 38,000 divided by 316 square land miles), and so the Rhode Island study supports the conclusion that Carver would not affect nearby home values. The report from Synapse Energy Economics is provided as **Attachment 3**.

University of Texas Study

As noted by the ASFMRA summary, students working with an engineering professor at the University of Texas also investigated the property value impacts of solar facilities.[6] In this effort, the students gathered survey responses from 37 local residential property assessors in several states about solar facilities and potential property value impacts. They also conducted a geospatial analysis to assess home density in the vicinity of solar facilities. As shown by these excerpts from the study report, the results of the students' research support the findings by Kirkland Appraisals about Carver:

[5] The report is available here: https://www.uri.edu/news/wp-content/uploads/news/sites/16/2020/09/PropertyValueImpactsOfSolar.pdf

[6] The report is available here: https://emp.lbl.gov/sites/default/files/property-value_impacts_near_utility-scale_solar_installations.pdf

> "Our results show that while a majority of survey respondents estimated a value impact of zero, some estimated a negative impact associated with close distances between the home and the facility, and larger facility size. Regardless of these perceptions, geospatial analysis shows that relatively few homes are likely to be impacted." (p. 1)
>
> "Results from our survey of residential home assessors shows that the majority of respondents believe that proximity to a solar installation has either no impact or a positive impact on home values." (p. 15)

Evaluation of Other Reports Provided to County

Concerned community members submitted two reports to the County on solar facilities and property values, one by a Kentucky-based appraiser named Clay and another from a North Carolina-based appraiser named Mashburn. Neither of these reports are about the Carver Solar facility and it is not clear that the authors are aware that their reports are being used in connection with Carver. Neither of the reports indicates that either of the authors has ever visited Isle of Wight County. Carver asked Kirkland Appraisals to evaluate the reports, and his evaluation is provided as **Attachment 4**.

Apart from the evaluation by Kirkland Appraisals, we note that Ms. Clay's opinions about solar energy and property values are full of anti-solar rhetoric and opinions which could bias her findings. The first nine pages of Ms. Clay's document set forth what she claims are flaws with solar energy relating to its intermittent nature, cost, feasibility, and other perceived technological and economic shortcomings. These opinions on subjects about which Ms. Clay has no expertise – and have no bearing on any potential property value impacts – show her inherent bias against the technology and industry.

For instance, Ms. Clay touts the University of Rhode Island study as a study from a "peer reviewed journal" that "unequivocally" concludes that solar facilities "negatively impact nearby property values . . . ." (p. 30). First, the researchers' report has not been published in a peer-reviewed journal or any journal for that matter, but merely posted on a website. Second, and more importantly, Ms. Clay misrepresents the conclusion of the study by ignoring the researchers' findings with respect to rural areas, areas in which the vast majority of solar facilities outside of Massachusetts and Rhode Island (such as Carver solar) are located. The researchers' report states that "[t]aken together, these results suggest that the treatment effect [the effect of constructing a solar facility] in rural areas is effectively zero (a statistically insignificant 0.1%), and that the negative externalities of solar arrays are only occurring in non-rural areas." (p. 17) Because it did not fit her anti-solar agenda, Ms. Clay chose to simply ignore this important finding of the study and to instead claim that the study was evidence of the opposite.

Apart from the evaluation by Kirkland Appraisals, we note that Mr. Mashburn's letter contains no research whatsoever – merely speculation – about solar facilities and property values. He also incorrectly describes the findings of both university reports discussed above. Accurate descriptions of these reports are provided by the ASFMRA summary.

Hazardous Materials

Concerns have been raised about possible contamination or pollution from hazardous materials or chemicals that may be present or used at solar facilities like the Carver Solar facility. Such concerns have been thoroughly addressed by many credible sources.

The components of the facility that are relevant to hazardous materials are summarized above in the "**Electric and Magnetic Fields"** section, and we will continue to discuss them here including (i) the solar panels, (ii) the inverters and (iii) the transformers located adjacent to the inverters. As N.C. State University has reported, "[p]hotovoltaic (PV) technologies and solar inverters are not known to pose any significant health dangers to their neighbors." (p. 3)

N.C. State University

The N.C. State research paper, cited above and included as Attachment 1, extensively addresses the subject of hazardous materials and solar. As the paper makes clear, solar facilities' electric generating equipment will not leak anything into the soil. Solar panels do not contain liquids, and so cannot leak anything to the soil. N.C. State University notes that "the only fluids that [inverters] might contain are associated with their cooling systems, which are not unlike the cooling system in a computer." (p. 12). The transformers associated with the inverters will have a cooling oil that "is either a nontoxic mineral oil or a biodegradable non-toxic vegetable oil . . . ." (p.12)

The semi-conducting material inside the solar panel is solid and cannot leak, but additionally, it will not affect the environment because it is sealed to protect it from moisture and ensure its performance over decades. According to N.C. State University:

> "To provide decades of corrosion-free operation, PV cells in PV panels are encapsulated from air and moisture between two layers of plastic. The encapsulation layers are protected on the top with a layer of tempered glass and on the backside with a polymer sheet. Frameless modules include a protective lawyer of glass on the rear of the panel, which may also be tempered. The plastic ethylene-vinyl acetate (EVA) commonly provides the cell encapsulation. For decades, this same material has been used between layers of tempered glass to give car windshields and hurricane windows their great strength. In the same way that a car windshield cracks but stays intact, the EVA layers in PV panels keep broken panels intact . . . . Thus, a damaged module does not generally create small pieces of debris; instead, it largely remains together as one piece. PV panels constructed with the same basic components as modern panels have been installed across the globe for well over thirty years. The long-term durability and performance demonstrated over these decades, as well as the results of accelerated lifetime testing, helped lead to an industry standard 25-year power production warranty for PV panels." (p. 5-6)

Zoning Ordinance and Recommended CUP Conditions

Although the facility will not create any contaminants, to ensure protection of the soil, the County's ordinance conservatively requires that the facility do the following:

> "Provide soil testing for any contaminants directly attributable to the solar panels before and after construction and every five (5) years during the interim until the facility is decommissioned. Owner/operator must provide copies of initial baseline report and subsequent reports to the zoning administrator. Should a negative finding indicating contamination from the solar panels occur, contamination must be remedied by the owner/operator to applicable state and federal standards."

This soil testing requirement in the ordinance will also address the concern about the release of zinc into the soil from the galvanized steel piles. Beyond selecting the proper galvanized steel components to support the decades-long design life, a study published by the North Carolina Department of Agriculture & Consumer Services Agronomic Division[7] indicates that maintaining proper pH levels in soils helps mitigate the concern. This is due to the fact that metal solubility increases with soil acidity. Lastly, any release of zinc into the soil as a result of steel oxidization would be local to the source of the oxidized steel. Soil remediation efforts, if any are needed, would follow industry best practices to return the soil to the pre-construction baseline levels. As you will see in the "**Decommissioning and Return to Agriculture**" section below, Carver Solar is happy to work with the County on additional soil testing requirements to ensure that this concern is fully addressed.

In addition, the Planning Commission and Staff recommended (and Carver endorses) the following condition requiring that the facility use state-of-the art solar panels:

> "As part of the site plan review, the Applicant shall provide documentation that the selected panels and all power generating equipment onsite are 'Tier 1' modules as established by the most recent 'PV Module Tier 1 List' issued by Bloomberg NEF or a similar third party analysis widely accepted in the solar industry." (Condition #13)

That same recommended condition also would require that any solar panels used pass U.S. EPA tests for non-toxicity, as follows:

> "Additionally, the make and model of the selected panels and all power generating equipment initially installed and replaced on the site must qualify, for disposal purposes, as non-hazardous waste under applicable U.S. Environmental Protection Agency tests (e.g. TCLP)." (Condition #13)

This requirement means that the solar panels, if not recycled, are safe enough in the eyes of the U.S. EPA to be disposed of in a regular landfill along with household garbage.

[7] The report is available here: https://www.ncagr.gov/agronomi/pdffiles/ustr.pdf

Decommissioning and Return to Agriculture

There also has been discussion about whether the farm fields that will host Carver's solar panels can return to farming after the facility is decommissioned. The County requires that the facility be removed when it ceases to operate. After decommissioning, the landowners will be able to return any of the farm fields to crop production should they choose to do so.

N.C. State University

In addition to its research paper on health and solar, in 2019 N.C. State University also published a companion paper titled "Balancing Agricultural Productivity with Ground-Based Solar Photovoltaic (PV) Development." The paper is provided as **Attachment 5**. In this research paper, N.C. State reports as follows:

> "Modern solar facilities may be considered a temporary, albeit long-term, use of the land, in the sense that the systems can be readily removed from the site at the end of their productive life. At that point the site can be return to agriculture, albeit with a potential for some short-term reduction in productivity due to loss of topsoil, compaction, change in pH, and change in available nutrients. Leasing farmland for solar PV use, particularly land that is actively being farmed today, is a viable way to preserve land for potential future agricultural use."

The construction of the facility will have only limited impact on the farm parcels that will host it. The racking systems that support the solar panels will be installed on steel piles driven directly into the ground about 10 feet and without the use of concrete. There will be minimal grading because the project area is mostly flat and the racking systems can be installed to conform to moderate changes in slope.

Zoning Ordinance and CUP Conditions

The County's zoning ordinance requires that decommissioning include the physical removal of all components, above and below ground, with the only possible exceptions being roads and buried cables on the request of the landowner and the approval of the Board of Supervisors. It also requires financial assurance (such as a bond) be provided to guarantee the availability of sufficient funds for decommissioning, which must be estimated by a professional engineer. This estimate will be highly conservative under CUP Condition #15 recommended by the Planning Commission and Staff (and endorsed by Carver), which provides "[n]o salvage value will be added to the decommissioning surety bond."

In part to ensure the protection of the land for future use, the Planning Commission and Staff also have recommended (and Carver endorses) several additional CUP conditions:

> "Topsoil will be conserved on site." (Condition #10)
>
> "Excluding the bufferyards described above, the ground between the panels and in areas not otherwise covered by gravel or infrastructure shall be planted and maintained with a

vegetative cover. This vegetative cover will be managed with mowing and/or grazing." (Condition #6)

"The applicant shall provide pollinator meadows." (Condition #19)

In addition, Carver would endorse as an additional CUP condition a robust set of requirements to ensure that the soil after decommissioning is fully suitable to resume agricultural productivity. A permit condition along these lines could be as follows:

> "The applicant shall implement a program for the collection of baseline data establishing pre-construction soil conditions for the production of row crops for the agricultural areas within the project area. The program shall establish the relevant characteristics of the topsoil. The baseline data shall be derived from field and laboratory testing of soil conditions, including depth, density and quality from representative locations. Laboratory testing shall be conducted by an accredited laboratory. Parameters for assessing soil quality may include the following: infiltration rate, bulk density, water holding capacity, pH, percent organic matter, cation exchange capacity, Phosphorous/Phosphate (P), Nitrogen (N), and Potassium/Potash (K). After 30 years of operation and again after 35 years of operation, soil conditions shall be determined for the same sampling locations using the same parameters and the results used to plan soil restoration activities. After equipment is removed as part of decommissioning, soil conditions shall be determined for the same sampling locations using the same parameters. Soil restoration activities shall be performed as necessary during operations or decommissioning to return soil conditions to at least baseline conditions. The County will be provided with data of soil conditions within 30 days after the receipt of results."

Of note, the proposed language above addresses objective soil criteria on the three key dimensions: (i) soil physical structure (via the infiltration rate, bulk density and water holding capacity testing) to address concerns about compaction, (ii) soil biological characteristics (via the organic matter and cation exchange capacity testing) and (iii) soil chemistry (via the pH, P, N, and K testing).

Stormwater

Finally, there has been some discussion surrounding how stormwater will be managed. Stormwater management includes an extensive review of multiple permitting applications and plans such that off-site impacts are appropriately mitigated by constructing appropriate stormwater control measures.

First, an Erosion and Sediment Control (E&SC) permit must be obtained. Isle of Wight County serves as its own Virginia Stormwater Management Program (VSMP) authority, which means that the application for this permit will be reviewed by the Isle of Wight Central Permitting Office.

Next, a Stormwater Pollution Prevention Plan (SWPPP) is prepared by a licensed engineer, which identifies all potential sources of pollutants that may reasonably be expected to affect the quality of stormwater discharges from the construction site. In addition, this document must identify and require the implementation of control measures and include an approved E&SC Plan and an approved Virginia Stormwater Management Plan.

Finally, a Land Disturbance Permit must be obtained from the County. The application for this permit includes a site plan developed by a licensed engineer meeting County and VDEQ standards, evidence of VSMP permit coverage, the SWPPP, a stormwater management maintenance plan, and environmental permits.

If the County believes that the E&SC and SWPPP review do not adequately address the community's stormwater concerns, Carver Solar is happy to explore an additional CUP condition to further address any outstanding concerns.

***

Attachment 1

Health and Safety Impacts of Solar Photovoltaics

The increasing presence of utility-scale solar photovoltaic (PV) systems (sometimes referred to as solar farms) is a rather new development in North Carolina's landscape. Due to the new and unknown nature of this technology, it is natural for communities near such developments to be concerned about health and safety impacts. Unfortunately, the quick emergence of utility-scale solar has cultivated fertile grounds for myths and half-truths about the health impacts of this technology, which can lead to unnecessary fear and conflict.

Photovoltaic (PV) technologies and solar inverters are not known to pose any significant health dangers to their neighbors. The most important dangers posed are increased highway traffic during the relative short construction period and dangers posed to trespassers of contact with high voltage equipment. This latter risk is mitigated by signage and the security measures that industry uses to deter trespassing. As will be discussed in more detail below, risks of site contamination are much less than for most other industrial uses because PV technologies employ few toxic chemicals and those used are used in very small quantities. Due to the reduction in the pollution from fossil-fuel-fired electric generators, the overall impact of solar development on human health is overwhelmingly positive. This pollution reduction results from a partial replacement of fossil-fuel fired generation by emission-free PV-generated electricity, which reduces harmful sulfur dioxide (SO_2), nitrogen oxides (NO_x), and fine particulate matter ($PM_{2.5}$). Analysis from the National Renewable Energy Laboratory and the Lawrence Berkeley National Laboratory, both affiliates of the U.S. Department of Energy, estimates the health-related air quality benefits to the southeast region from solar PV generators to be worth 8.0 ¢ per kilowatt-hour of solar generation.[1] This is in addition to the value of the electricity and suggests that the air quality benefits of solar are worth more than the electricity itself.

Even though we have only recently seen large-scale installation of PV technologies, the technology and its potential impacts have been studied since the 1950s. A combination of this solar-specific research and general scientific research has led to the scientific community having a good understanding of the science behind potential health and safety impacts of solar energy. This paper utilizes the latest scientific literature and knowledge of solar practices in N.C. to address the health and safety risks associated with solar PV technology. These risks are extremely small, far less than those associated with common activities such as driving a car, and vastly outweighed by health benefits of the generation of clean electricity.

This paper addresses the potential health and safety impacts of solar PV development in North Carolina, organized into the following four categories:

(1) Hazardous Materials
(2) Electromagnetic Fields (EMF)
(3) Electric Shock and Arc Flash
(4) Fire Safety

1. Hazardous Materials

One of the more common concerns towards solar is that the panels (referred to as “modules” in the solar industry) consist of toxic materials that endanger public health. However, as shown in this section, solar energy systems may contain small amounts of toxic materials, but these materials do not endanger public health. To understand potential toxic hazards coming from a solar project, one must understand system installation, materials used, the panel end-of-life protocols, and system operation. This section will examine these aspects of a solar farm and the potential for toxicity impacts in the following subsections:

(1.2) Project Installation/Construction
(1.2) System Components
    1.2.1 Solar Panels: Construction and Durability
    1.2.2 Photovoltaic technologies
        (a) Crystalline Silicon
        (b) Cadmium Telluride (CdTe)
        (c) CIS/CIGS
    1.2.3 Panel End of Life Management
    1.2.4 Non-panel System Components
(1.3) Operations and Maintenance

1.1 Project Installation/Construction

The system installation, or construction, process does not require toxic chemicals or processes. The site is mechanically cleared of large vegetation, fences are constructed, and the land is surveyed to layout exact installation locations. Trenches for underground wiring are dug and support posts are driven into the ground. The solar panels are bolted to steel and aluminum support structures and wired together. Inverter pads are installed, and an inverter and transformer are installed on each pad. Once everything is connected, the system is tested, and only then turned on.



Figure 1: Utility-scale solar facility (5 MW_{AC}) located in Catawba County. Source: Strata Solar

1.2 System Components

1.2.1 Solar Panels: Construction and Durability

Solar PV panels typically consist of glass, polymer, aluminum, copper, and semiconductor materials that can be recovered and recycled at the end of their useful life.[2] Today there are two PV technologies used in PV panels at utility-scale solar facilities, silicon, and thin film. As of 2016, all thin film used in North Carolina solar facilities are cadmium telluride (CdTe) panels from the US manufacturer First Solar, but there are other thin film PV panels available on the market, such as Solar Frontier's CIGS panels. Crystalline silicon technology consists of silicon wafers which are made into cells and assembled into panels, thin film technologies consist of thin layers of semiconductor material deposited onto glass, polymer or metal substrates. While there are differences in the components and manufacturing processes of these two types of solar technologies, many aspects of their PV panel construction are very similar. Specifics about each type of PV chemistry as it relates to toxicity are covered in subsections a, b, and c in section 1.2.2; on crystalline silicon, cadmium telluride, and CIS/CIGS respectively. The rest of this section applies equally to both silicon and thin film panels.

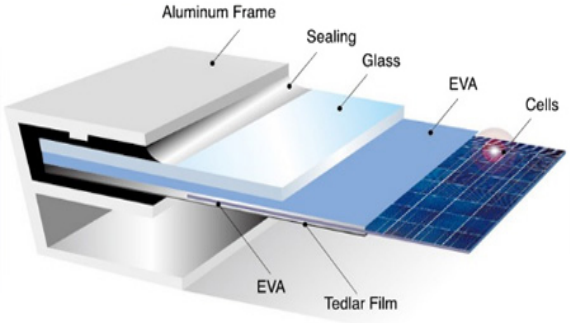


Figure 2: Components of crystalline silicon panels. The vast majority of silicon panels consist of a glass sheet on the topside with an aluminum frame providing structural support. Image Source: www.riteksolar.com.tw

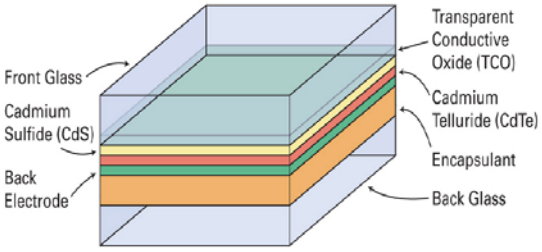


Figure 3: Layers of a common frameless thin-film panel (CdTe). Many thin film panels are frameless, including the most common thin-film panels, First Solar's CdTe. Frameless panels have protective glass on both the front and back of the panel. Layer thicknesses not to scale. Image Source: www.homepower.com

To provide decades of corrosion-free operation, PV cells in PV panels are encapsulated from air and moisture between two layers of plastic. The encapsulation layers are protected on the top with a layer of tempered glass and on the backside with a polymer sheet. Frameless modules include a protective layer of glass on the rear of the panel, which may also be tempered. The plastic ethylene-vinyl acetate (EVA) commonly provides the cell encapsulation. For decades, this same material has been used between layers of tempered glass to give car windshields and hurricane windows their great strength. In the same way that a car windshield cracks but stays intact, the EVA layers in PV panels keep broken panels intact (see Figure 4). Thus, a damaged module does not generally create small pieces of debris; instead, it largely remains together as one piece.



Figure 4: The mangled PV panels in this picture illustrate the nature of broken solar panels; the glass cracks but the panel is still in one piece. Image Source: http://img.alibaba.com/photo/115259576/broken_solar_panel.jpg

PV panels constructed with the same basic components as modern panels have been installed across the globe for well over thirty years.[3] The long-term durability and performance demonstrated over these decades, as well as the results of accelerated lifetime testing, helped lead to an industry-standard 25-year power production warranty for PV panels. These power warranties warrant a PV panel to produce at least 80% of their original nameplate production after 25 years of use. A recent SolarCity and DNV GL study reported that today's quality PV panels should be expected to reliably and efficiently produce power for thirty-five years.[4]

Local building codes require all structures, including ground mounted solar arrays, to be engineered to withstand anticipated wind speeds, as defined by the local wind speed requirements. Many racking products are available in versions engineered for wind speeds of up to 150 miles per hour, which is significantly higher than the wind speed requirement anywhere in North Carolina. The strength of PV mounting structures were demonstrated during Hurricane Sandy in 2012 and again during Hurricane Matthew in 2016. During Hurricane Sandy, the many large-scale solar facilities in New Jersey and New York at that time suffered only minor damage.[5] In the fall of 2016, the US and Caribbean experienced destructive winds and torrential rains from Hurricane Matthew, yet one leading solar tracker manufacturer reported that their numerous systems in the impacted area received zero damage from wind or flooding.[6]

In the event of a catastrophic event capable of damaging solar equipment, such as a tornado, the system will almost certainly have property insurance that will cover the cost to cleanup and repair the project. It is in the best interest of the system owner to protect their investment against such risks. It is also in their interest to get the project repaired and producing full power as soon as possible. Therefore, the investment in adequate insurance is a wise business practice for the system owner. For the same

reasons, adequate insurance coverage is also generally a requirement of the bank or firm providing financing for the project.

1.2.2 Photovoltaic (PV) Technologies

a. **Crystalline Silicon**

This subsection explores the toxicity of silicon-based PV panels and concludes that they do not pose a material risk of toxicity to public health and safety. Modern crystalline silicon PV panels, which account for over 90% of solar PV panels installed today, are, more or less, a commodity product. The overwhelming majority of panels installed in North Carolina are crystalline silicon panels that are informally classified as Tier I panels. Tier I panels are from well-respected manufacturers that have a good chance of being able to honor warranty claims. Tier I panels are understood to be of high quality, with predictable performance, durability, and content. Well over 80% (by weight) of the content of a PV panel is the tempered glass front and the aluminum frame, both of which are common building materials. Most of the remaining portion are common plastics, including polyethylene terephthalate in the backsheet, EVA encapsulation of the PV cells, polyphenyl ether in the junction box, and polyethylene insulation on the wire leads. The active, working components of the system are the silicon photovoltaic cells, the small electrical leads connecting them together, and to the wires coming out of the back of the panel. The electricity generating and conducting components makeup less than 5% of the weight of most panels. The PV cell itself is nearly 100% silicon, and silicon is the second most common element in the Earth's crust. The silicon for PV cells is obtained by high-temperature processing of quartz sand (SiO_2) that removes its oxygen molecules. The refined silicon is converted to a PV cell by adding extremely small amounts of boron and phosphorus, both of which are common and of very low toxicity.

The other minor components of the PV cell are also generally benign; however, some contain lead, which is a human toxicant that is particularly harmful to young children. The minor components include an extremely thin antireflective coating (silicon nitride or titanium dioxide), a thin layer of aluminum on the rear, and thin strips of silver alloy that are screen-printed on the front and rear of cell.[7] In order for the front and rear electrodes to make effective electrical contact with the proper layer of the PV cell, other materials (called glass frit) are mixed with the silver alloy and then heated to etch the metals into the cell. This glass frit historically contains a small amount of lead (Pb) in the form of lead oxide. The 60 or 72 PV cells in a PV panel are connected by soldering thin solder-covered copper tabs from the back of one cell to the front of the next cell. Traditionally a tin-based solder containing some lead (Pb) is used, but some manufacturers have switched to lead-free solder. The glass frit and/or the solder may contain trace amounts of other metals, potentially including some with human toxicity such as cadmium. However, testing to simulate the potential for leaching from broken panels, which is discussed in more detail below, did not find a potential toxicity threat from these trace elements. Therefore, the tiny amount of lead in the grass frit and the solder is the only part of silicon PV panels with a potential to create a negative health impact. However, as described below, the very limited amount of lead involved and its strong physical and chemical attachment to other components of the PV panel means that even in worst-case scenarios the health hazard it poses is insignificant.

As with many electronic industries, the solder in silicon PV panels has historically been a lead-based solder, often 36% lead, due to the superior properties of such solder. However, recent advances in lead-free solders have spurred a trend among PV panel manufacturers to reduce or remove the lead in their panels. According to the 2015 Solar Scorecard from the Silicon Valley Toxics Coalition, a group that tracks environmental responsibility of photovoltaic panel manufacturers, fourteen companies (increased from twelve companies in 2014) manufacture PV panels certified to meet the European Restriction of

Hazardous Substances (RoHS) standard. This means that the amount of cadmium and lead in the panels they manufacture fall below the RoHS thresholds, which are set by the European Union and serve as the world's de facto standard for hazardous substances in manufactured goods.[8] The Restriction of Hazardous Substances (RoHS) standard requires that the maximum concentration found in any homogenous material in a produce is less than 0.01% cadmium and less than 0.10% lead, therefore, any solder can be no more than 0.10% lead.[9]

While some manufacturers are producing PV panels that meet the RoHS standard, there is no requirement that they do so because the RoHS Directive explicitly states that the directive does not apply to photovoltaic panels.[10] The justification for this is provided in item 17 of the current RoHS Directive: "The development of renewable forms of energy is one of the Union's key objectives, and the contribution made by renewable energy sources to environmental and climate objectives is crucial. Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources (4) recalls that there should be coherence between those objectives and other Union environmental legislation. Consequently, this Directive should not prevent the development of renewable energy technologies that have no negative impact on health and the environment and that are sustainable and economically viable."

The use of lead is common in our modern economy. However, only about 0.5% of the annual lead consumption in the U.S. is for electronic solder for all uses; PV solder makes up only a tiny portion of this 0.5%. Close to 90% of lead consumption in the US is in batteries, which do not encapsulate the pounds of lead contained in each typical automotive battery. This puts the lead in batteries at great risk of leaching into the environment. Estimates for the lead in a single PV panel with lead-based solder range from 1.6 to 24 grams of lead, with 13g (less than half of an ounce) per panel seen most often in the literature.[11] At 13 g/panel[12], each panel contains one-half of the lead in a typical 12-gauge shotgun shell. This amount equates to roughly 1/750th of the lead in a single car battery. In a panel, it is all durably encapsulated from air or water for the full life of the panel.[14]

As indicated by their 20 to 30-year power warranty, PV modules are designed for a long service life, generally over 25 years. For a panel to comply with its 25-year power warranty, its internal components, including lead, must be sealed from any moisture. Otherwise, they would corrode and the panel's output would fall below power warranty levels. Thus, the lead in operating PV modules is not at risk of release to the environment during their service lifetime. In extreme experiments, researchers have shown that lead can leach from crushed or pulverized panels.[15, 16] However, more real-world tests designed to represent typical trash compaction that are used to classify waste as hazardous or non-hazardous show no danger from leaching.[17, 18] For more information about PV panel end-of-life, see the Panel Disposal section.

As illustrated throughout this section, silicon-based PV panels do not pose a material threat to public health and safety. The only aspect of the panels with potential toxicity concerns is the very small amount of lead in some panels. However, any lead in a panel is well sealed from environmental exposure for the operating lifetime of the solar panel and thus not at risk of release into the environment.

b. Cadmium Telluride (CdTe) PV Panels

This subsection examines the components of a cadmium telluride (CdTe) PV panel. Research demonstrates that they pose negligible toxicity risk to public health and safety while significantly reducing the public's exposure to cadmium by reducing coal emissions. As of mid-2016, a few hundred MWs of

cadmium telluride (CdTe) panels, all manufactured by the U.S. company First Solar, have been installed in North Carolina.

Questions about the potential health and environmental impacts from the use of this PV technology are related to the concern that these panels contain cadmium, a toxic heavy metal. However, scientific studies have shown that cadmium telluride differs from cadmium due to its high chemical and thermal stability.[19] Research has shown that the tiny amount of cadmium in these panels does not pose a health or safety risk.[20] Further, there are very compelling reasons to welcome its adoption due to reductions in unhealthy pollution associated with burning coal. Every GWh of electricity generated by burning coal produces about 4 grams of cadmium air emissions.[21] Even though North Carolina produces a significant fraction of our electricity from coal, electricity from solar offsets much more natural gas than coal due to natural gas plants being able to adjust their rate of production more easily and quickly. If solar electricity offsets 90% natural gas and 10% coal, each 5-megawatt (5 MW_{AC}, which is generally 7 MW_{DC}) CdTe solar facility in North Carolina keeps about 157 grams, or about a third of a pound, of cadmium *out of* our environment.[22, 23]

Cadmium is toxic, but all the approximately 7 grams of cadmium in one CdTe panel is in the form of a chemical compound cadmium telluride,[24] which has $1/100^{th}$ the toxicity of free cadmium.[25] Cadmium telluride is a very stable compound that is non-volatile and non-soluble in water. Even in the case of a fire, research shows that less than 0.1% of the cadmium is released when a CdTe panel is exposed to fire. The fire melts the glass and encapsulates over 99.9% of the cadmium in the molten glass.[27]

It is important to understand the source of the cadmium used to manufacture CdTe PV panels. The cadmium is a byproduct of zinc and lead refining. The element is collected from emissions and waste streams during the production of these metals and combined with tellurium to create the CdTe used in PV panels. If the cadmium were not collected for use in the PV panels or other products, it would otherwise either be stockpiled for future use, cemented and buried, or disposed of.[28] Nearly all the cadmium in old or broken panels can be recycled which can eventually serve as the primary source of cadmium for new PV panels.[29]

Similar to silicon-based PV panels, CdTe panels are constructed of a tempered glass front, one instead of two clear plastic encapsulation layers, and a rear heat strengthened glass backing (together >98% by weight). The final product is built to withstand exposure to the elements without significant damage for over 25 years. While not representative of damage that may occur in the field or even at a landfill, laboratory evidence has illustrated that when panels are ground into a fine powder, very acidic water is able to leach portions of the cadmium and tellurium,[30] similar to the process used to recycle CdTe panels. Like many silicon-based panels, CdTe panels are reported (as far back ask 1998[31]) to pass the EPA's Toxic Characteristic Leaching Procedure (TCLP) test, which tests the potential for crushed panels in a landfill to leach hazardous substances into groundwater.[32] Passing this test means that they are classified as non-hazardous waste and can be deposited in landfills.[33, 34] For more information about PV panel end-of-life, see the Panel Disposal section.

There is also concern of environmental impact resulting from potential catastrophic events involving CdTe PV panels. An analysis of worst-case scenarios for environmental impact from CdTe PV panels, including earthquakes, fires, and floods, was conducted by the University of Tokyo in 2013. After reviewing the extensive international body of research on CdTe PV technology, their report concluded, "Even in the worst-case scenarios, it is unlikely that the Cd concentrations in air and sea water will exceed the environmental regulation values."[35] In a worst-case scenario of damaged panels abandoned on the ground, insignificant amounts of cadmium will leach from the panels. This is because this scenario is

much less conducive (larger module pieces, less acidity) to leaching than the conditions of the EPA's TCLP test used to simulate landfill conditions, which CdTe panels pass.[36]

First Solar, a U.S. company, and the only significant supplier of CdTe panels, has a robust panel take-back and recycling program that has been operating commercially since 2005.[37] The company states that it is "committed to providing a commercially attractive recycling solution for photovoltaic (PV) power plant and module owners to help them meet their module (end of life) EOL obligation simply, cost-effectively and responsibly." First Solar global recycling services to their customers to collect and recycle panels once they reach the end of productive life whether due to age or damage. These recycling service agreements are structured to be financially attractive to both First Solar and the solar panel owner. For First Solar, the contract provides the company with an affordable source of raw materials needed for new panels and presumably a diminished risk of undesired release of Cd. The contract also benefits the solar panel owner by allowing them to avoid tipping fees at a waste disposal site. The legal contract helps provide peace of mind by ensuring compliance by both parties when considering the continuing trend of rising disposal costs and increasing regulatory requirements.

c. CIS/CIGS and other PV technologies

Copper indium gallium selenide PV technology, often referred to as CIGS, is the second most common type of thin-film PV panel but a distant second behind CdTe. CIGS cells are composed of a thin layer of copper, indium, gallium, and selenium on a glass or plastic backing. None of these elements are very toxic, although selenium is a regulated metal under the Federal Resource Conservation and Recovery Act (RCRA).[38] The cells often also have an extremely thin layer of cadmium sulfide that contains a tiny amount of cadmium, which is toxic. The promise of high efficiency CIGS panels drove heavy investment in this technology in the past. However, researchers have struggled to transfer high efficiency success in the lab to low-cost full-scale panels in the field.[39] Recently, a CIGS manufacturer based in Japan, Solar Frontier, has achieved some market success with a rigid, glass-faced CIGS module that competes with silicon panels. Solar Frontier produces the majority of CIS panels on the market today.[40] Notably, these panels are RoHS compliant,[41] thus meeting the rigorous toxicity standard adopted by the European Union even thought this directive exempts PV panels. The authors are unaware of any completed or proposed utility-scale system in North Carolina using CIS/CIGS panels.

1.2.3 Panel End-of-Life Management

Concerns about the volume, disposal, toxicity, and recycling of PV panels are addressed in this subsection. To put the volume of PV waste into perspective, consider that by 2050, when PV systems installed in 2020 will reach the end of their lives, it is estimated that the global annual PV panel waste tonnage will be 10% of the 2014 global e-waste tonnage.[42] In the U.S., end-of-life disposal of solar products is governed by the Federal Resource Conservation and Recovery Act (RCRA), as well as state policies in some situations. RCRA separates waste into hazardous (not accepted at ordinary landfill) and solid waste (generally accepted at ordinary landfill) based on a series of rules. According to RCRA, the way to determine if a PV panel is classified as hazardous waste is the Toxic Characteristic Leaching Procedure (TCLP) test. This EPA test is designed to simulate landfill disposal and determine the risk of hazardous substances leaching out of the landfill.[43, 44, 45] Multiple sources report that most modern PV panels (both crystalline silicon and cadmium telluride) pass the TCLP test.[46, 47] Some studies found that some older (1990s) crystalline silicon panels, and perhaps some newer crystalline silicon panels (specifics are not given about vintage of panels tested), do not pass the lead (Pb) leachate limits in the TCLP test.[48, 49]

The test begins with the crushing of a panel into centimeter-sized pieces. The pieces are then mixed in an acid bath. After tumbling for eighteen hours, the fluid is tested for forty hazardous substances that all must be below specific threshold levels to pass the test. Research comparing TCLP conditions to conditions of damaged panels in the field found that simulated landfill conditions provide overly conservative estimates of leaching for field-damaged panels.[50] Additionally, research in Japan has found no detectable Cd leaching from cracked CdTe panels when exposed to simulated acid rain.[51]

Although modern panels can generally be landfilled, they can also be recycled. Even though recent waste volume has not been adequate to support significant PV-specific recycling infrastructure, the existing recycling industry in North Carolina reports that it recycles much of the current small volume of broken PV panels. In an informal survey conducted by the NC Clean Energy Technology Center survey in early 2016, seven of the eight large active North Carolina utility-scale solar developers surveyed reported that they send damaged panels back to the manufacturer and/or to a local recycler. Only one developer reported sending damaged panels to the landfill.

The developers reported at that time that they are usually paid a small amount per panel by local recycling firms. In early 2017, a PV developer reported that a local recycler was charging a small fee per panel to recycle damaged PV panels. The local recycling firm known to authors to accept PV panels described their current PV panel recycling practice as of early 2016 as removing the aluminum frame for local recycling and removing the wire leads for local copper recycling. The remainder of the panel is sent to a facility for processing the non-metallic portions of crushed vehicles, referred to as "fluff" in the recycling industry.[52] This processing within existing general recycling plants allows for significant material recovery of major components, including glass which is 80% of the module weight, but at lower yields than PV-specific recycling plants. Notably almost half of the material value in a PV panel is in the few grams of silver contained in almost every PV panel produced today. In the long-term, dedicated PV panel recycling plants can increase treatment capacities and maximize revenues resulting in better output quality and the ability to recover a greater fraction of the useful materials.[53] PV-specific panel recycling technologies have been researched and implemented to some extent for the past decade, and have been shown to be able to recover over 95% of PV material (semiconductor) and over 90% of the glass in a PV panel.[54]

A look at global PV recycling trends hints at the future possibilities of the practice in our country. Europe installed MW-scale volumes of PV years before the U.S. In 2007, a public-private partnership between the European Union and the solar industry set up a voluntary collection and recycling system called PV CYCLE. This arrangement was later made mandatory under the EU's WEEE directive, a program for waste electrical and electronic equipment.[55] Its member companies (PV panel producers) fully finance the association. This makes it possible for end-users to return the member companies' defective panels for recycling at any of the over 300 collection points around Europe without added costs. Additionally, PV CYCLE will pick up batches of 40 or more used panels at no cost to the user. This arrangement has been very successful, collecting and recycling over 13,000 tons by the end of 2015.[56]

In 2012, the WEEE Directive added the end-of-life collection and recycling of PV panels to its scope.[57] This directive is based on the principle of extended-producer-responsibility. It has a global impact because producers that want to sell into the EU market are legally responsible for end-of-life management. Starting in 2018, this directive targets that 85% of PV products "put in the market" in Europe are recovered and 80% is prepared for reuse and recycling.

The success of the PV panel collection and recycling practices in Europe provides promise for the future of recycling in the U.S. In mid-2016, the US Solar Energy Industry Association (SEIA) announced that they are starting a national solar panel recycling program with the guidance and support of many

leading PV panel producers.[58] The program will aggregate the services offered by recycling vendors and PV manufacturers, which will make it easier for consumers to select a cost-effective and environmentally responsible end-of-life management solution for their PV products. According to SEIA, they are planning the program in an effort to make the entire industry landfill-free. In addition to the national recycling network program, the program will provide a portal for system owners and consumers with information on how to responsibly recycle their PV systems.

While a cautious approach toward the potential for negative environmental and/or health impacts from retired PV panels is fully warranted, this section has shown that the positive health impacts of reduced emissions from fossil fuel combustion from PV systems more than outweighs any potential risk. Testing shows that silicon and CdTe panels are both safe to dispose of in landfills, and are also safe in worst case conditions of abandonment or damage in a disaster. Additionally, analysis by local engineers has found that the current salvage value of the equipment in a utility scale PV facility generally exceeds general contractor estimates for the cost to remove the entire PV system.[59, 60, 61]

1.2.4 Non-Panel System Components (racking, wiring, inverter, transformer)

While previous toxicity subsections discussed PV panels, this subsection describes the non-panel components of utility-scale PV systems and investigates any potential public health and safety concerns. The most significant non-panel component of a ground-mounted PV system is the mounting structure of the rows of panels, commonly referred to as “racking”. The vertical post portion of the racking is galvanized steel and the remaining above-ground racking components are either galvanized steel or aluminum, which are both extremely common and benign building materials. The inverters that make the solar generated electricity ready to send to the grid have weather-proof steel enclosures that protect the working components from the elements. The only fluids that they might contain are associated with their cooling systems, which are not unlike the cooling system in a computer. Many inverters today are RoHS compliant.

The electrical transformers (to boost the inverter output voltage to the voltage of the utility connection point) do contain a liquid cooling oil. However, the fluid used for that function is either a non-toxic mineral oil or a biodegradable non-toxic vegetable oil, such as BIOTEMP from ABB. These vegetable transformer oils have the additional advantage of being much less flammable than traditional mineral oils. Significant health hazards are associated with old transformers containing cooling oil with toxic PCBs. Transfers with PCB-containing oil were common before PCBs were outlawed in the U.S. in 1979. PCBs still exist in older transformers in the field across the country.

Other than a few utility research sites, there are no batteries on- or off-site associated with utility-scale solar energy facilities in North Carolina, avoiding any potential health or safety concerns related to battery technologies. However, as battery technologies continue to improve and prices continue to decline we are likely to start seeing some batteries at solar facilities. Lithium ion batteries currently dominate the world utility-scale battery market, which are not very toxic. No non-panel system components were found to pose any health or environmental dangers.

1.4 Operations and Maintenance – Panel Washing and Vegetation Control

Throughout the eastern U.S., the climate provides frequent and heavy enough rain to keep panels adequately clean. This dependable weather pattern eliminates the need to wash the panels on a regular basis. Some system owners may choose to wash panels as often as once a year to increase production, but most in N.C. do not regularly wash any PV panels. Dirt build up over time may justify panel washing a few times over the panels' lifetime; however, nothing more than soap and water are required for this activity.

The maintenance of ground-mounted PV facilities requires that vegetation be kept low, both for aesthetics and to avoid shading of the PV panels. Several approaches are used to maintain vegetation at NC solar facilities, including planting of limited-height species, mowing, weed-eating, herbicides, and grazing livestock (sheep). The following descriptions of vegetation maintenance practices are based on interviews with several solar developers as well as with three maintenance firms that together are contracted to maintain well over 100 of the solar facilities in N.C. The majority of solar facilities in North Carolina maintain vegetation primarily by mowing. Each row of panels has a single row of supports, allowing sickle mowers to mow under the panels. The sites usually require mowing about once a month during the growing season. Some sites employ sheep to graze the site, which greatly reduces the human effort required to maintain the vegetation and produces high quality lamb meat.[62]

In addition to mowing and weed eating, solar facilities often use some herbicides. Solar facilities generally do not spray herbicides over the entire acreage; rather they apply them only in strategic locations such as at the base of the perimeter fence, around exterior vegetative buffer, on interior dirt roads, and near the panel support posts. Also unlike many row crop operations, solar facilities generally use only general use herbicides, which are available over the counter, as opposed to restricted use herbicides commonly used in commercial agriculture that require a special restricted use license. The herbicides used at solar facilities are primarily 2-4-D and glyphosate (Round-up®), which are two of the most common herbicides used in lawns, parks, and agriculture across the country. One maintenance firm that was interviewed sprays the grass with a class of herbicide known as a growth regulator in order to slow the growth of grass so that mowing is only required twice a year. Growth regulators are commonly used on highway roadsides and golf courses for the same purpose. A commercial pesticide applicator license is required for anyone other than the landowner to apply herbicides, which helps ensure that all applicators are adequately educated about proper herbicide use and application. The license must be renewed annually and requires passing of a certification exam appropriate to the area in which the applicator wishes to work. Based on the limited data available, it appears that solar facilities in N.C. generally use significantly less herbicides per acre than most commercial agriculture or lawn maintenance services.

2. Electromagnetic Fields (EMF)

PV systems do not emit any material during their operation; however, they do generate electromagnetic fields (EMF), sometimes referred to as radiation. EMF produced by electricity is non-ionizing radiation, meaning the radiation has enough energy to move atoms in a molecule around (experienced as heat), but not enough energy to remove electrons from an atom or molecule (ionize) or to damage DNA. As shown below, modern humans are all exposed to EMF throughout our daily lives without negative health impact. Someone outside of the fenced perimeter of a solar facility is not exposed to significant EMF from the solar facility. Therefore, there is no negative health impact from the EMF

produced in a solar farm. The following paragraphs provide some additional background and detail to support this conclusion.

Since the 1970s, some have expressed concern over potential health consequences of EMF from electricity, but no studies have ever shown this EMF to cause health problems.[63] These concerns are based on some epidemiological studies that found a slight increase in childhood leukemia associated with average exposure to residential power-frequency magnetic fields above 0.3 to 0.4 µT (microteslas) (equal to 3.0 to 4.0 mG (milligauss)). µT and mG are both units used to measure magnetic field strength. For comparison, the average exposure for people in the U.S. is one mG or 0.1 µT, with about 1% of the population with an average exposure in excess of 0.4 µT (or 4 mG).[64] These epidemiological studies, which found an association but not a causal relationship, led the World Health Organization's International Agency for Research on Cancer (IARC) to classify ELF magnetic fields as "possibly carcinogenic to humans". Coffee also has this classification. This classification means there is limited evidence but not enough evidence to designate as either a "probable carcinogen" or "human carcinogen". Overall, there is very little concern that ELF EMF damages public health. The only concern that does exist is for long-term exposure above 0.4 µT (4 mG) that may have some connection to increased cases of childhood leukemia. In 1997, the National Academies of Science were directed by Congress to examine this concern and concluded:

> "Based on a comprehensive evaluation of published studies relating to the effects of power-frequency electric and magnetic fields on cells, tissues, and organisms (including humans), the conclusion of the committee is that the current body of evidence does not show that exposure to these fields presents a human-health hazard. Specifically, no conclusive and consistent evidence shows that exposures to residential electric and magnetic fields produce cancer, adverse neurobehavioral effects, or reproductive and developmental effects."[65]

There are two aspects to electromagnetic fields, an electric field and a magnetic field. The electric field is generated by voltage and the magnetic field is generated by electric current, i.e., moving electrons. A task group of scientific experts convened by the World Health Organization (WHO) in 2005 concluded that there were no substantive health issues related to *electric* fields (0 to 100,000 Hz) at levels generally encountered by members of the public.[66] The relatively low voltages in a solar facility and the fact that electric fields are easily shielded (i.e., blocked) by common materials, such as plastic, metal, or soil means that there is no concern of negative health impacts from the electric fields generated by a solar facility. Thus, the remainder of this section addresses magnetic fields. Magnetic fields are not shielded by most common materials and thus can easily pass through them. Both types of fields are strongest close to the source of electric generation and weaken quickly with distance from the source.

The direct current (DC) electricity produced by PV panels produce stationary (0 Hz) electric and magnetic fields. Because of minimal concern about potential risks of stationary fields, little scientific research has examined stationary fields' impact on human health.[67] In even the largest PV facilities, the DC voltages and currents are not very high. One can illustrate the weakness of the EMF generated by a PV panel by placing a compass on an operating solar panel and observing that the needle still points north.

While the electricity throughout the majority of a solar site is DC electricity, the inverters convert this DC electricity to alternating current (AC) electricity matching the 60 Hz frequency of the grid. Therefore, the inverters and the wires delivering this power to the grid are producing non-stationary EMF, known as extremely low frequency (ELF) EMF, normally oscillating with a frequency of 60 Hz. This frequency is at the low-energy end of the electromagnetic spectrum. Therefore, it has less energy than

other commonly encountered types of non-ionizing radiation like radio waves, infrared radiation, and visible light.

The wide use of electricity results in background levels of ELF EMFs in nearly all locations where people spend time – homes, workplaces, schools, cars, the supermarket, etc. A person's average exposure depends upon the sources they encounter, how close they are to them, and the amount of time they spend there.[68] As stated above, the average exposure to magnetic fields in the U.S. is estimated to be around one mG or 0.1 µT, but can vary considerably depending on a person's exposure to EMF from electrical devices and wiring.[69] At times we are often exposed to much higher ELF magnetic fields, for example when standing three feet from a refrigerator the ELF magnetic field is 6 mG and when standing three feet from a microwave oven the field is about 50 mG.[70] The strength of these fields diminish quickly with distance from the source, but when surrounded by electricity in our homes and other buildings moving away from one source moves you closer to another. However, unless you are inside of the fence at a utility-scale solar facility or electrical substation it is impossible to get very close to the EMF sources. Because of this, EMF levels at the fence of electrical substations containing high voltages and currents are considered "generally negligible".[71, 72]

The strength of ELF-EMF present at the perimeter of a solar facility or near a PV system in a commercial or residential building is significantly lower than the typical American's average EMF exposure.[73, 74] Researchers in Massachusetts measured magnetic fields at PV projects and found the magnetic fields dropped to very low levels of 0.5 mG or less, and in many cases to less than background levels (0.2 mG), at distances of no more than nine feet from the residential inverters and 150 feet from the utility-scale inverters.[75] Even when measured within a few feet of the utility-scale inverter, the ELF magnetic fields were well below the International Commission on Non-Ionizing Radiation Protection's recommended magnetic field level exposure limit for the general public of 2,000 mG.[76] It is typical that utility scale designs locate large inverters central to the PV panels that feed them because this minimizes the length of wire required and shields neighbors from the sound of the inverter's cooling fans. Thus, it is rare for a large PV inverter to be within 150 feet of the project's security fence.

Anyone relying on a medical device such as pacemaker or other implanted device to maintain proper heart rhythm may have concern about the potential for a solar project to interfere with the operation of his or her device. However, there is no reason for concern because the EMF outside of the solar facility's fence is less than 1/1000 of the level at which manufacturers test for ELF EMF interference, which is 1,000 mG.[77] Manufacturers of potentially affected implanted devices often provide advice on electromagnetic interference that includes avoiding letting the implanted device get too close to certain sources of fields such as some household appliances, some walkie-talkies, and similar transmitting devices. Some manufacturers' literature does not mention high-voltage power lines, some say that exposure in public areas should not give interference, and some advise not spending extended periods of time close to power lines.[78]

3. Electric Shock and Arc Flash Hazards

There is a real danger of electric shock to anyone entering any of the electrical cabinets such as combiner boxes, disconnect switches, inverters, or transformers; or otherwise coming in contact with voltages over 50 Volts.[79] Another electrical hazard is an arc flash, which is an explosion of energy that can occur in a short circuit situation. This explosive release of energy causes a flash of heat and a shockwave, both of which can cause serious injury or death. Properly trained and equipped technicians and electricians know how to safely install, test, and repair PV systems, but there is always some risk of

injury when hazardous voltages and/or currents are present. Untrained individuals should not attempt to inspect, test, or repair any aspect of a PV system due to the potential for injury or death due to electric shock and arc flash, The National Electric Code (NEC) requires appropriate levels of warning signs on all electrical components based on the level of danger determined by the voltages and current potentials. The national electric code also requires the site to be secured from unauthorized visitors with either a six-foot chain link fence with three strands of barbed wire or an eight-foot fence, both with adequate hazard warning signs.

4. Fire Safety

The possibility of fires resulting from or intensified by PV systems may trigger concern among the general public as well as among firefighters. However, concern over solar fire hazards should be limited because only a small portion of materials in the panels are flammable, and those components cannot self-support a significant fire. Flammable components of PV panels include the thin layers of polymer encapsulates surrounding the PV cells, polymer backsheets (framed panels only), plastic junction boxes on rear of panel, and insulation on wiring. The rest of the panel is composed of non-flammable components, notably including one or two layers of protective glass that make up over three quarters of the panel's weight.

Heat from a small flame is not adequate to ignite a PV panel, but heat from a more intense fire or energy from an electrical fault can ignite a PV panel.[80] One real-world example of this occurred during July 2015 in an arid area of California. Three acres of grass under a thin film PV facility burned without igniting the panels mounted on fixed-tilt racks just above the grass.[81] While it is possible for electrical faults in PV systems on homes or commercial buildings to start a fire, this is extremely rare.[82] Improving understanding of the PV-specific risks, safer system designs, and updated fire-related codes and standards will continue to reduce the risk of fire caused by PV systems.

PV systems on buildings can affect firefighters in two primary ways, 1) impact their methods of fighting the fire, and 2) pose safety hazard to the firefighters. One of the most important techniques that firefighters use to suppress fire is ventilation of a building's roof. This technique allows superheated toxic gases to quickly exit the building. By doing so, the firefighters gain easier and safer access to the building, Ventilation of the roof also makes the challenge of putting out the fire easier. However, the placement of rooftop PV panels may interfere with ventilating the roof by limiting access to desired venting locations.

New solar-specific building code requirements are working to minimize these concerns. Also, the latest National Electric Code has added requirements that make it easier for first responders to safely and effectively turn off a PV system. Concern for firefighting a building with PV can be reduced with proper fire fighter training, system design, and installation. Numerous organizations have studied fire fighter safety related to PV. Many organizations have published valuable guides and training programs. Some notable examples are listed below.

- The International Association of Fire Fighters (IAFF) and International Renewable Energy Council (IREC) partnered to create an online training course that is far beyond the PowerPoint click-and-view model. The self-paced online course, "Solar PV Safety for Fire Fighters," features rich video content and simulated environments so fire fighters can practice the knowledge they've learned. www.iaff.org/pvsafetytraining
- Photovoltaic Systems and the Fire Code: Office of NC Fire Marshal
- Fire Service Training, Underwriter's Laboratory

- Firefighter Safety and Response for Solar Power Systems, National Fire Protection Research Foundation
- Bridging the Gap: Fire Safety & Green Buildings, National Association of State Fire Marshalls
- Guidelines for Fire Safety Elements of Solar Photovoltaic Systems, Orange County Fire Chiefs Association
- Solar Photovoltaic Installation Guidelines, California Department of Forestry & Fire Protection, Office of the State Fire Marshall
- PV Safety & Firefighting, Matthew Paiss, Homepower Magazine
- PV Safety and Code Development: Matthew Paiss, Cooperative Research Network

Summary

The purpose of this paper is to address and alleviate concerns of public health and safety for utility-scale solar PV projects. Concerns of public health and safety were divided and discussed in the four following sections: (1) Toxicity, (2) Electromagnetic Fields, (3) Electric Shock and Arc Flash, and (4) Fire. In each of these sections, the negative health and safety impacts of utility-scale PV development were shown to be negligible, while the public health and safety benefits of installing these facilities are significant and far outweigh any negative impacts.

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NC CLEAN ENERGY TECHNOLOGY CENTER

Attachment 2

From the desk of
Thomas H. Cleveland III, P.E.
Raleigh, NC

February 3, 2023

Ryan Gilchrist
Carver Solar I, LLC
1105 Navasota Street
Austin, TX 78702

Re: Carver Solar and Community EMF Concerns

Dear Ryan:

At your request, here is some additional information about the Carver Solar facility and EMF in light of some of the comments and questions about the subject raised at the public hearing last month. To provide this information, I have reviewed the Concept Plan for Carver Solar that was submitted to the County, reviewed the EMF discussion in the N.C. State University white paper "Health and Safety Impacts of Solar Photovoltaics" (May 2017), of which I was the principal author, and conducted additional research with respect to EMF and battery-equipped medical implants. I hope you find this useful.

EMF and Carver Solar:

The PV panels at Caver will produce DC (direct current) electricity, and its inverters will convert that DC electricity into grid-synced AC (alternating current) electricity. AC current oscillates with a frequency of 60 Hz (60 times per second), which generates electric and magnetic fields (or EMF) that also oscillate at 60 Hz. DC current does not change direction and thus creates static electric and magnetic fields, which have a frequency of 0 Hz.

At 0 Hz these magnetic fields from DC current are stationary, like the magnetic field around a magnet and like the magnetic field of the Earth. The current flow through the PV panels will be small, so the panels will only create a weak magnetic field, which is in fact weaker than the Earth's natural magnetic field. (This can be seen by placing a compass on an operating PV panel and seeing the compass still point north. Even where all the DC electricity is concentrated as it enters each inverter, you still have to get fairly close to the wires for their static magnetic field to be strong enough to attract a compass needle.) So, the vast majority of the equipment and area of the Carver Solar facility will contain only DC electricity, which will emit essentially zero EMF.

The inverters will convert DC electricity to AC electricity by very quickly operating a network of solid-state switches, thousands of times a second. This fast switching will result in 60 Hz AC electricity, and also some localized EMF around the switching frequency of 1,000 to 10,000 times per second (1kHz to 10 kHz). EMF in this frequency range is much higher frequency than 60 Hz, but is still very low frequency for EMF. (EMF from 60 Hz to 10 kHz is considered low frequency radio waves.) So, the switching-frequency (1-10 kHz) EMF

will only be generated at the inverters, and the strength of this EMF will reduce exponentially with distance from the inverter. A 2015 study on EMF measurements at a utility-scale PV facility by the non-profit Electric Power Research Institute (EPRI) found that the switching-frequency EMF returned to background levels (close to zero milligauss (mG)) within 10 ft of 500 kW inverters. New, larger inverters of the type that Carver Solar will use would be expected to emit switching-frequency EMF no more than 50 to 100 feet away from the inverter.

The AC electricity that will be generated by each inverter will be at only 600 volts. To transfer this electricity to the substation more efficiently, each inverter will be connected to a transformer that increases the voltage from 600 volts to 34,500 volts. This large increase in voltage comes with an equivalently large reduction in current, which will dramatically reduce the wire size needed, the energy lost due to resistance, and the EMF generated, in the wiring from each inverter transformer to the substation. This means that the very short section of AC wiring from the inverter to the transformer will be the location with the highest AC current and the most significant source of power-frequency (60 Hz) EMF at Carver Solar. This EMF will attenuate exponentially with distance from the source, so even moderate EMF strength at the surface of the equipment will attenuate to background levels within a distance of 500 feet of the inverter.

The wires leaving the 34.5 kV side of the transformers will travel to the substation where they will connect to the large substation transformer to increase the voltage again, this time to match the 115 kV voltage of the existing transmission line. The various paths from the inverter transformers to the substation will be primarily underground, with shielded cables buried at least three feet below grade. These buried wires, and any sections where a circuit may travel on poles, will be equivalent from an EMF perspective to the electric distribution lines that travel along practically every road in Isle of Wight County. Also, the substation voltage and currents for Carver Solar will be similar to typical utility substations in the County.

Most people in the U.S. are exposed to power-frequency magnetic fields that average less than 2 milligauss (mG) across the 24 hours in a day, with most of the exposure occurring inside of buildings. The average strength of EMF from a refrigerator is 2 milligauss at 1 foot away and 1 milligauss at 2 feet away. The average EMF experienced in the home is 0.9 milligauss. In office buildings, schools, and grocery stores, the median exposure ranges between 0.5 milligauss and 2.7 milligauss. As explained above, the common level of exposure will not change for any member of the public due to the operation of the Carver Solar facility.

EMF and Medical Devices:

For about the past 20 years, there have been concerns about strong magnetic fields causing various types of interference with implanted medical devices that run on electricity provided by batteries, such as pacemakers and neurostimulators. I believe that this is a subject about which these device manufacturers are well aware, and I suspect that they design their devices to be immune to moderate amounts of EMF across a wide range of frequencies. There are millions of people with these types of devices, and these devices are exposed to typical modern sources of EMF with only an extremely small number of reported problems.

From the desk of
Thomas H. Cleveland III, P.E.
Raleigh, NC

Some studies have found that strong magnetic fields in the general frequency range of AC power (60 Hz) and inverter switching (5 kHz) can cause some interference with some devices. A common EMF source in this category that has raised some concerns and has been studied closely is security devices such as metal detectors and retail store anti-theft scanners. The strength of the magnetic field to which these devices would expose someone in normal use is on the order of 250 to 10,000 mG. This is hundreds to thousands of times stronger than the highest level of exposure of someone standing at the fence of Carver Solar.

Even for these magnetic fields from security devices it is very rare for any of the implanted medical devices to experience an impact. It is clear that someone with an implanted device could travel by and live next to the Carver Solar facility with zero risk of EMF from the PV facility impacting the function of the implanted device. The potential EMF the person could potentially experience from Carver Solar is negligible compared the strength and variety of EMF exposures throughout every day in typical residential and commercial buildings.

This is especially true for the Carver Solar facility given that it will set back inverters at least 500 feet from the property lines and provide 200-foot setbacks between all other equipment and property lines. People outside of the project fence simply would not be expected to ever experience any increase in EMF exposure due to the facility.

If you need any additional information on this subject, please do not hesitate to let me know.

Sincerely,



Thomas (Tommy) Cleveland

thcleveland@gmail.com

919-923-5490

Attachment 3

Synapse
Energy Economics, Inc.

October 16, 2020

David Savage
Open Road Renewables, LLC
1105 Navasota Street
Austin, TX 78702

RE: Review of solar and home value paper from Gaur and Lang.

Dear Mr. Savage:

This is in response to the request by Open Road Renewables that Synapse Energy Economics Inc. review and advise it about the research paper *Property Value Impacts of Commercial-Scale Solar Energy in Massachusetts and Rhode Island*, dated September 29, 2020, prepared by Gaur and Lang.[1] Specifically, Open Road has asked Synapse to briefly explain the purpose, methodology, and conclusions of the paper. You also asked us to advise whether the paper considered the possible effects of commercial solar facilities on nearby home values in rural areas.

Study Purpose

Gaur and Lang identified a gap in the literature noting that there is limited information on the possible impacts of commercial solar photovoltaic facilities. The authors argued that this information will become increasingly important as solar projects expand across New England and the country as part of state efforts to encourage clean energy development. To address this gap, these researchers used statistical methods to determine whether utility-scale solar photovoltaic facilities reduce the values of nearby homes. The analysis is grounded in the theory that property values should reflect whether people are willing to pay to avoid living close to a commercial-scale solar development.

Methodology

The researchers used what economists refer to as a hedonic price model to determine if there is a causal relationship between the price paid for a home and its proximity to a commercial solar facility of 1 MW or greater in size. The paper focused on homes and solar facilities located in Rhode Island and Massachusetts from January 2005 to June 2019. Using a repeat sales approach, sale prices were compared for the same properties both before and after the nearby solar facility was built. The researchers used home sales within 1 to 3 miles of a commercial solar facility as a control group. This decision was based on analysis that found that, beyond 1 mile, the effect of the construction of a solar facility on home sale prices is statistically insignificant. The treatment group was confined to homes that are located less than 1 mile from a commercial solar facility. These two groups are necessary to

[1] Gaur, V. and C. Lang. (2020). *Property Value Impacts of Commercial-Scale Solar Energy in Massachusetts and Rhode Island*. Submitted to University of Rhode Island Cooperative Extension on September 29, 2020. Available at https://web.uri.edu/coopext/valuing-siting-options-for-commercial-scale-solar-energy-in-rhode-island/.

determine whether there are any observed differences in home prices, relative to proximity to a commercial solar facility, that are statistically significant. Additional analysis was presented to determine whether prior land use and population density influence any observed impacts on home prices in relation to proximity to a commercial solar facility.

Study Findings

The researchers found that homes located within 1 mile of solar facilities sold for, on average, 1.7 percent less than similar homes located within 1 to 3 miles of solar facilities. They found a larger price reduction impact on homes closer to a commercial solar facility; homes located within a tenth of a mile from a commercial solar facility sold for 7 percent less, on average.

Additional analysis found that the impact on home prices from proximity to a commercial solar facility was less when the land converted to host a solar facility was a brownfield or landfill. In contrast, Solar facilities built on farmland and in cleared forested land (i.e., greenfield sites) had a stronger influence on the relationship between home prices and proximity to a solar facility. However, this finding was not statistically significant.

Municipalities in Rhode Island and Massachusetts were identified as rural (fewer than 850 people per square mile) or non-rural/suburban (more than 850 people per square mile).[2] The researchers examined the effect of solar facilities on home prices separately for homes located in rural areas and non-rural/suburban areas. The causal relationship between home prices and proximity to a solar facility only appeared in non-rural/suburban municipalities. By contrast, the researchers found that solar facilities in rural areas did not have a statistically significant effect on the sale prices of nearby homes. Thus, the researchers conclude that the negative impacts of solar facilities on home values occur only in non-rural/suburban areas with populations densities of 850 people per square mile or more.

Finally, the researchers investigated the combined impacts of prior land use and non-rural/suburban and rural designation on home values relative to proximity to commercial solar facilities. The additional statistical analysis found that the overall negative effects of solar facilities on nearby property values are driven by greenfield sites in non-rural/suburban locations. They found that similar developments on farm and forest lands in rural locations have no effect on nearby home values.



Steve Letendre, PhD
Principal Associate



Patrick Knight
Principal Associate

[2] In Massachusetts and Rhode Island, any given square mile of land is associated with one and only one municipality. There are 351 such municipalities in Massachusetts and 39 in Rhode Island.

Attachment 4

Kirkland Appraisals

Richard C. Kirkland, Jr., MAI
9408 Northfield Court
Raleigh, North Carolina 27603
Phone (919) 414-8142
rkirkland2@gmail.com
www.kirklandappraisals.com

January 25, 2023

Ryan Gilchrist
Open Road Renewables
1105 Navasota Street
Austin, TX 78702

RE: Carver Solar I, LLC Solar Project, Windsor, Isle of Wight County, VA

Mr. Gilchrist

The purpose of this letter is to address questions from neighbors that were brought to my attention related to the Carver Solar I, LLC projct.

To summarize my background on the issue of property values around solar farms, I note that I have been researching this topic for over 15 years. I have looked at over 1,000 solar farms over that time period and I have worked in 28 states. I have identified over 100 homes that have sold next to solar farms including homes up to $1,600,000 that were within 200 feet of solar panels. I have reviewed all of the major university studies on this topic and I have interviewed the lead researchers for each of those studies. I have surveyed all of the assessors in NC and VA to see how assessor's are addressing property values adjoining solar farms and I have begun similar research in a number of other states. I have been accepted as an expert on this topic in hundreds of local and state level government reviews and my findings and methodology have been upheld by numerous Superior Court findings. I have led seminars on this topic for the Center for Energy Education as well as for the American Society of Farm Managers and Rural Appraisers (ASFMRA).

The findings presented in the impact analysis that I completed in the 146-page report that was previously submitted on this topic shows the analysis and conclusions that support a finding for no impact on property value. This is an analysis of factual data that supports this conclusion and not an unsupported assertion with no data to back it up.

There were two appraisers cited by opponents of this project. The first was Mary Clay out of Kentucky. I note that I have already reviewed Ms. Clay's findings in my original report and that can be found on pages 24 and 25 of my report. In addition to those comments, I would note that the report that was presented by Ms. Clay was specific to a project in Kansas and not used with her permission in this proceeding. Furthermore, I can provide additional background on Ms. Clay that should be helpful in determining the validity of her analysis. The Kentucky State Siting Board is a state-level review board in Kentucky that hired an engineering firm, Wells Engineering to review the first couple of larger solar farms announced in Kentucky to ensure the information provided by the developer was accurate and complete. McCracken Solar was one of the first such projects where I was made aware of this. Wells Engineering hired Ms. Clay to do the appraisal analysis as part of that work. Ms. Clay used similar research as to what is presented in the Kansas study to indicate a negative impact by the solar farm; however, Wells Engineering found her study to be not credible and concluded that the solar farm in question would not impact property value. This report was presented on behalf of the state to the siting board. My analysis was also considered in that case and the Kentucky State Siting Board concluded on no impact on

value. In fact, Ms. Clay has stated under oath that the Kentucky State Siting Board has never accepted her research on this topic that she is aware of.

The reasons for her research not being considered credible are outlined in my analysis in the original appraisal on Pages 24 and 25 as noted above.

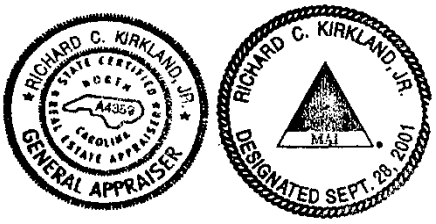
The other appraiser cited by opposition is a letter by Christopher Mashburn. This letter states that university studies have found a negative impact on property value and he considers that more reliable than appraisal studies funded by solar developers. The primary problem with that 2-page letter he provides is that he specifically cites the University of Texas at Austin study and he says that it shows a negative impact on property value. However, I have discussed that study in my original study on pages 27 and 28 where I show that the researchers concluded "Results from our survey of residential home assessors show that the majority of respondents believe that proximity to solar installation has either no impact of a positive impact on home values." The study in fact shows that only responses from appraisers who self-identify as having no experience in solar farms thought there would be a negative impact and the responses from appraisers who have appraised property next to a solar farm concluded on neutral to positive impacts. Given that Mr. Mashburn drawn a conclusion based on a misreading of the study, his conclusion cannot be relied on. I further note, that not only have I interviewed the researchers involved in this study, I was actually involved in designing the questions for that survey and I am cited in the contributors of that analysis.

Going even further, while Mr. Mashburn does not cite them specifically, I have addressed all of the major university studies in my analysis as shown on pages 27 through 31. I have interviewed the researchers involved in all of these studies except for the ECU Masters Thesis. All of these university studies support a finding of no impact on property value in rural settings. While the Rhode Island study did find a negative impact in high-population areas in urban settings, they specifically found no impacts in rural and even suburban areas.

If you have any further questions please call me any time.

Sincerely,





Richard C. Kirkland, Jr., MAI
Kirkland Appraisals, LLC

Attachment 5

NC CLEAN ENERGY
TECHNOLOGY CENTER

Balancing Agricultural Productivity with Ground-Based Solar Photovoltaic (PV) Development

AUGUST 2017



NC STATE UNIVERSITY

Balancing Agricultural Productivity with Ground-Based Solar Photovoltaic (PV) Development

Introduction

For centuries North Carolina farmers have made a major contribution to the state's economy by working the land and providing billions of pounds of agricultural and forestry products to meet demands for food and fiber. This resource serves as a foundational economic building block for the state. North Carolina's farming and forestry community provides North Carolinians and people across the world with food and fiber. That said, the demands of our growing, modern society require renewable forms of energy to begin to replace finite non-renewable energy resources that have traditionally provided the means for transportation, electricity, and much more.

Given that land and climatic conditions suitable for agriculture are finite, solar development may compete with agricultural land use. One use converts sunlight and fertilizer into food and fiber, while the other converts sunlight into electricity. The purpose of this paper is to explore the extent to which solar photovoltaic facilities and agricultural production compete for land use, as well as the extent to which agricultural production is affected by solar development. The paper is divided into two sections:

(1) Understanding the Context of Solar Development and Agriculture in North Carolina.
- (1.1) Developing Renewable Energy,
- (1.2) Landowner Land Use Choice,
- (1.3) Solar Facility Construction,
- (1.4) Duration of Solar Use,

(2) Weighing the Impact of PV Development on Agriculture
- (2.1) Solar PV Land Use
- (2.2) Impact on Agricultural Productivity

1. Understanding the Context of Solar Development and Agriculture in North Carolina

This section provides some background on solar development in North Carolina. By illustrating the existing demand for renewable energy (1.1), touching on the state's political climate towards private land use (1.2), and highlighting two important considerations of PV development (1.3 and 1.4), the context surrounding the two competing land uses of solar development and agriculture can be better understood. As agriculture is and has been a dominant, established land

use in this state for generations, discussion in this section will primarily focus on the increasing demands of land to be used for solar development.

1.1 Developing Renewable Energy

Currently, almost all of North Carolina's electricity is generated from fuels, such as coal, natural gas, and uranium, which are produced outside the state. Some coal plants in North Carolina are reaching the end of their useful lives and being retired.[1,2] Alternative sources of energy, such as solar and wind, have become much more economically attractive in the last several years, making it possible to economically replace some nuclear, coal, and gas electricity generation with these sources.[3]

More than three hundred privately financed utility-scale solar facilities operate in North Carolina under current electricity prices, regulations, and policies, with more planned for the future. As with any new technology, price drops and performance improvements may be expected over time as production volumes increase and experience is gained. Since 2009, the total cost to develop and build a utility-scale solar facility in North Carolina has dropped from over $5 per watt to about $1 per watt. This rapid cost reduction in utility-scale solar facilities has greatly improved the financial viability of solar projects; many solar projects are now being planned even without the North Carolina renewable energy tax credit that expired at the end of 2015.[4,5]

In addition to the increasingly attractive economics, some of the shift towards solar energy has been driven by policy choices. Solar and other types of renewable energy have many benefits that have motivated support from policymakers. For instance, they do not use imported fuel, reducing our exposure to fuel price volatility. Solar energy also does not produce the air pollution and greenhouse gases emitted by fossil fuel-powered electricity generation, and it avoids some other environmental risks associated with fossil and nuclear fuels such as coal ash and radioactive waste disposal. Reduction of air pollution has been part of state and national policy for decades, and the U.S. has seen steadily improving air quality as a result[6] Solar and other clean energy sources assist in this ongoing reduction in air pollution.

Solar energy offers many benefits to North Carolina. However, while solar development provides a source of clean in-state energy, it requires land to do so. This means that solar energy projects will sometimes compete with other potential land uses.

1.2 Landowner Land Use Choice

North Carolina policy generally leaves land use decisions in the hands of landowners. That said, the state, local, and federal governments can encourage or discourage specific landowner choices through the incentives or disincentives that they provide for particular uses, as well as through various forms of regulation, such as zoning rules and environmental restrictions. The balance of state-provided incentives for agricultural or solar energy production can, in some cases, be the determining factor in the decision to invest in solar or agriculture development. Also, the current grid infrastructure limits the sites feasible for solar development; it is only feasible to connect solar to certain locations in the grid and only to a limited density.

North Carolina has granted local governments the power to regulate land use in their jurisdictions, although state and federal rules apply in many circumstances. This means that local governments can manage land development with the needs of the community in mind, while also safeguarding natural resources. These land-use regulations can put limits on the allowed uses for some land and thus limit landowners' options, in some cases affecting the viability of solar development. Some agricultural land has been exempted from certain regulations due to "grandfathering," and changing the land use to solar may remove these exemptions, which can affect the ability to return the land to agricultural use in the future.[7]

Land use regulations that may be relevant to solar development, depending on the location, can include (but are not limited to):[8]

- Local zoning and land use rules (fencing, buffer zones between buildings and roads, border shrubs/trees, etc.)
- Floodplain development rules
- Erosion and sedimentation rules
- Permitting regarding military and air traffic impact
- Water quality rules (i.e. Neuse nutrient strategy rules, Coastal Area Management Act rules)
- USDA wetlands impact rules

To determine whether these and other rules are relevant for a potential solar development, landowners and solar developers should consult their local government planning departments, the Soil and Water Conservation Division of the N.C. Department of Agriculture and Consumer Services, the USDA Natural Resources Conservation Service office, and the USDA Farm Services Agency.

1.3 Solar Facility Construction

Solar panels are supported by steel or aluminum racks. The racks are attached to galvanized steel posts driven 6-8 feet into the ground without concrete, although very occasionally, site conditions require the use of cement grout in the pile hole. The only concrete is generally at the inverter/transformer pads which are typically about 10' by 20' each. There is usually no more than one such pad per MW of AC capacity. At some sites these pads are precast concrete or steel skids that sit above grade on helical steel piers. Much of the wiring at the site is above-ground attached to the racking under the rows of panels. The rest of the wiring is 2 to 3 feet underground either as direct-bury cables or in 2"-6" PVC conduit. Most sites involve minimal grading of the land.

Every site provides access for vehicles, which requires roads, or "access aisles," to be constructed. These roads are sometimes improved with gravel, but they do not require application of concrete or asphalt. Many sites only use gravel close to the entry to the public Right of Way, as required by NCDOT regulation, with the rest of the access aisles as simply compacted native soil. Some developers use reusable wooden logging mats to provide temporary stabilization during construction to avoid the need for the addition of gravel. A best practice when building a gravel access aisle is to strip the organic topsoil, place a geotextile fabric under the aggregate and redistribute the topsoil on site to assist in soil stabilization. This will provide stability for the aggregate, allow for more efficient removal of the gravel at the end of the project's life cycle by

providing separation between aggregate and subgrade, while preserving the valuable topsoil on site for future agricultural use.[9] Well-drafted leases will specify allowable construction techniques and locations of roads and other infrastructure. The NC Department of Environmental Quality (DEQ) requires soil erosion and sedimentation control plans and permits and inspects implemented measures on the site until vegetative groundcover is established.

1.4 Duration of Solar Use

Currently in North Carolina most utility-scale solar projects have a 15-year Power Purchase Agreement (PPA) with the local electric utility. Some developers prefer to purchase the land, while others prefer to lease, depending on the project's business model and financing arrangements. Typical land leases have a term of 15 to 30 years, often with several optional 5-year extensions.[10] While specific lease rates are generally undisclosed, in our understanding lease rates often range between $500 and $1,000 per acre per year. Most solar PV panel manufacturers include a 25-year power warranty on their panels, which cover the panels to produce at least 80% of their original power output at the expiration of the warranty period.

Modern solar facilities may be considered a temporary, albeit long-term, use of the land, in the sense that the systems can be readily removed from the site at the end of their productive life. At this point, the site can be returned to agricultural use, albeit with a potential for some short-term reduction in productivity due to loss of topsoil, compaction, change in pH, and change in available nutrients. Leasing farmland for solar PV use, particularly land that is not actively being farmed today, is a viable way to preserve land for potential future agricultural use. PV use is particularly valuable in this regard when compared to commercial or residential development, which require changes to the land that are very difficult to reverse. For landowners struggling to retain ownership of their land due to financial strains, solar leasing may provide a vital, stable income solution. It may also serve as a more appealing alternative to selling their land to buyers intending to use the land for other, more permanent non-agricultural uses.

While it is very difficult to predict the state of electricity, agriculture, and real estate markets 25 or more years into the future, existing circumstances can provide some insight into the likelihood of today's solar facilities continuing as solar facilities at the end of the initial PV modules' useful lifetime. The he economics of existing solar facilities are such that many of the projects built today are likely to update some of their equipment after 20 or more years and continue to operate as a solar electricity facility for many more years. The ability to facilitate interconnection to the electric grid provides great value to a landowner. A parcel of land featuring this capability in today's market will likely also appeal to solar developers in the future due to the infrastructure cost savings.

2. Weighing the Impact of PV Development on Agriculture

The purpose of this section is to explore how the competing land uses of solar development and agriculture interact and can coexist with each other. Subsection 2.1 provides analysis of data and metrics that quantify the current and potential amount of solar development on agricultural land in North Carolina. Subsection 2.2 explores the impacts that solar development could have on future agricultural production on the developed site and neighboring properties. Taken together,

Section 2 of this factsheet provides several factors to consider when weighing the impact of PV development on agriculture.

2.1 Solar PV Land-Use

The NC Sustainable Energy Association (NCSEA) with the North Carolina Department of Agriculture and Consumer Services (NCDA&CS) used GIS software to quantify the amount of solar land use. As of December 2016, solar installations occupied 0.2 percent (9,074 acres) of North Carolina's 4.75 million acres of cropland.[11] NCDA&CS has provided an updated estimate; they estimate that 14,864 acres of cropland, or 0.31 percent of the total, were occupied by solar development at the end of the first quarter of 2017.[12] NCSEA and NCDA&CS were able to locate and quantify solar use for 318 of 341 currently-installed utility-scale facilities in North Carolina. A map of the solar installations in the state prepared by NCSEA is available at: http://energyncmaps.org/gis/solar/index.html. [13] The researchers extrapolated the per-MW findings of the 318 sites found in aerial photos to generate an estimate for the remaining 23 projects not yet visible in the latest aerial photography. Across all projects, 79% of solar project area was formerly farmland, defined as land identified from aerial photography to have been used for crops, hay, or pasture before solar development. On average, the solar projects occupied 5.78 acres per MW_{AC}.

N.C. has been losing farmland to various forms of development for many years. Over the last decade, North Carolina has lost about one million acres of cropland to development and housing. Since 1940, total cropland in N.C. has fallen from 8.42 million acres to 4.75 million acres (as of 2012). The North Carolina Department of Agriculture has identified farmland preservation as one of its top priorities since 2005.

As of the end of 2016, solar PV installations added 2,300 MW_{AC} of solar generating capacity to North Carolina's electricity grid, making NC second in the nation for installed solar PV capacity. These installations generate enough electricity to power approximately 256,000 average N.C. homes, equaling 6.2% of all households in the state.[14] NCSEA and NCDA&CS published the summary of their land-use analysis in February of 2017 and NCSEA released a report on this research in April of this year.[15]

If the current siting and production trends were to continue until ground-mounted solar produced, on average, an amount of electricity equal to *100%* of N.C.'s current electricity use, solar facilities would cover about 8% of current N.C. cropland.[16] This is an unrealistic extreme to illustrate the limited possible magnitude of land usage for solar even at very high solar generation levels, yet even this scenario would occupy only about half of the N.C. cropland acreage lost to development in the last 10 years. Even if solar were to provide all of our electricity, ground-mounted utility-scale solar will almost certainly not be the only source of electricity. As PV prices continue to decline it is likely that North Carolina will see more and more rooftop and parking lot canopies, reducing the need for green field development. A recent Department of Energy study found that rooftop systems have the technical capability to meet 23.5% of North Carolina's electricity demand.[17]

A more likely scenario, even assuming that fossil fuel and nuclear based electricity is entirely phased out, is that other sources of renewable electricity and technologies will meet a large portion of our electricity needs. A Stanford University study of the optimal mix of renewable energy sources for each state to achieve 100% renewable energy found that North Carolina would get only 26.5% of its electricity from utility-scale solar plants.[18] At this still highly expanded level of solar development, based off of the 8.3% land use for 100% solar figure calculated earlier, the amount of NC cropland used for solar would be around 2.2%.

More realistically, in the next decade or two, solar electricity may grow to provide around 5 – 20% of North Carolina's electricity, which would allow solar to meet, or nearly meet, the full requirements of the North Carolina Renewable Energy and Energy Efficiency Portfolio Standard. At the 12.5% REPS requirement, this is about 13 GW_{AC} of PV, which will require about 75,000 acres of land at the average historic density found in the NCCETC/NCDA study. This is not an insignificant amount of land, but if split between agricultural and non-agricultural land at the same ratio as the first 2.3 GW installed in NC this represents about 1.1% of cropland in the state. NCSEA projects that by 2030, utility-scale solar will provide 5.03% of North Carolina's electricity and use 0.57% of available cropland.[19]

Solar energy's land use requirements are comparable to those of existing energy sources. According to an MIT study, supplying 100% of U.S. electricity demand in 2050 with solar would require us of about 0.4% of the country's land area; this is only half the amount of land currently used to grow corn for ethanol fuel production, and about the same amount of land as has been disturbed by surface coal mining.[20]

For landowners interested in solar development, it is important to understand the agricultural value of the land before entering into a solar lease agreement. Careful due diligence in the siting phase can help mitigate the use of the most valuable farmland. Landowners can contact their county tax office for property value information. The following online resources can assist landowners and developers in assessing the agricultural value of land before selecting the final footprint for solar development:

- www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/nra/dma/
  The USDA Natural Resources Conservation Service provides several tools in this link to identify soil types on property.
- www.ncmhtd.com/rye/ The North Carolina Realistic Yields Database provides landowners with a useful mapping and soil analysis tool that produces realistic productivity yields for expected crops given the landowner's property location and soil type.

2.2 Impact on Agricultural Productivity

This subsection provides an overview of impacts that solar development may have on agricultural land. The discussion of these impacts is divided into the following subtopics: construction grading and soil preservation, compaction, erosion, weed control, toxicity, and pollinators, followed by a brief discussion of decommissioning. The subtopic discussions illustrate that solar development, with proper planning and implementation, results in a small but manageable impact on the future agricultural productivity of the land on which it is sited. Further, these discussions also illustrate that solar development is unlikely to significantly affect the agricultural productivity of neighboring properties now or in the future.

Construction Grading and Soil Preservation

The amount of grading necessary to prepare a parcel for a utility-scale solar facility is dependent on the slope of land and the type of solar mounting used. In much of N.C., fixed-tilt mounting of PV requires little to no grading for installation of the PV system. Single-axis tracking systems that slowly rotate each row of panels to track the sun's path across the sky generally require flatter land (typically less than 8% grading) and thus more often require grading of the site, particularly for projects in the Piedmont region or farther west.[21] Typical construction practices require that topsoil be stripped and stockpiled prior to cut/fill operations. The stockpiled topsoil will be redistributed across graded areas, to assist in growing adequate ground cover as quickly as possible to provide ground stabilization. The stripping, stockpiling and redistribution of topsoil in this manner will have some impact on the amount of organics and nutrients that remain in the soil immediately after placement. However, proper ground stabilization practices include soil testing to determine the appropriate levels of lime, fertilizer and seed to be applied to establish ground cover. Proper installation practices require these additives to be tilled into the soil, which effectively reduces the compaction of the upper soil stratum, typically to a depth of 8"-12". Typical solar projects will not remove any topsoil from the project site, partly due to financial implications, but more importantly due to its value in establishing ground cover as quickly as possible[22] (removing soil also requires a mining permit).[23] Most landowners steer solar projects to their least productive soils on a given piece of property to the extent practical.[24]

Soil Quality

Modern agriculture relies on regular additions of lime and fertilizer to maintain soil pH and fertility. Solar facilities maintain vegetative ground covers that can help build soil quality over time, which may require lime and fertilizer to be applied. When the vegetation is cut, the organic matter is left in place to decompose which adds valuable organic matter to the soil. A facility operation and maintenance schedule should include a plan for maintenance of sufficient plant groundcover to protect soil from erosion. Maintaining healthy plant cover will require monitoring of soil fertility and may call for the addition of fertilizer or lime to ensure sufficient nutrients are available for plant growth and that soil pH is adequate. Vegetation mixes may help balance soil nutrient needs, but will need to be managed. Species composition will change over time.[25] NREL and others are researching and using vegetation mixes that include many native grasses with deep root systems; many include some nitrogen fixing plants as well. According to a study published in July 2016 that measured soil and air microclimate, vegetation and greenhouse gas emissions for twelve months under photovoltaic (PV) arrays, in gaps between PV arrays and in control areas at a UK solar sited on species-rich grassland, UK scientists found no change in soil properties among the three locations.[26]After a solar project is removed, a routine soil test (available from the North Carolina Department of Agriculture) should be obtained to determine fertility requirements, including lime, for optimum crop production.

Compaction

Soil compaction can negatively impact soil productivity and will occur to some degree on every solar site. Soil compaction can also limit water infiltration into the soil environment, and

lead to greater surface water runoff during rain events.[27] In addition to the roads built in and around solar project sites, the construction of the facility itself as well as regular use of lawn mowers compacts the soil, decreasing the ability of plant roots to grow. However, use of land as a solar site will avoid agriculture-related activities that can induce compaction, such as tillage. There are no data available on the degree of compaction common at solar facilities, but it is possible that some sites could experience heavy compaction in frequently used areas. In cases of heavy compaction, hard pans in the soil will form that can take decades to naturally free up; however, tractor implements such as chisels and vibrators designed to break up hard pan can often remove enough compaction to restore productivity. To prevent damage to soil due to compaction, landowners can negotiate for practices that will result in the least amount of compaction and for roads to be constructed on less productive land. Additionally, maintaining healthy groundcover, especially varieties with deep root systems, can serve to keep the soil arable for potential future agricultural use. The appropriate use of alternative vegetative maintenance strategies, such as grazing with sheep, can reduce the use of mowing equipment onsite and therefore the compaction that may result from using this equipment.[28] Furthermore, livestock grazing works to cycle nutrients in the pasture ecosystem onsite and improve the soil.

Erosion

According to its current Stormwater Design Manual, the N.C. Department of Environmental Quality allows solar panels associated with ground-mounted solar farms to be considered *pervious* if configured such that they promote sheet flow of stormwater from the panels and allow natural infiltration of stormwater into the ground beneath the panels.[29] For solar development, an erosion control and sedimentation permit is required, which involves on-site inspections and approval by the North Carolina Department of Environmental Quality. The permit requires establishment of permanent vegetative ground cover sufficient to restrain erosion; according to DEQ staff, the site must be "completely stabilized," although this does not require a specific percentage of ground cover.[30] In-depth information on erosion control and sedimentation laws, rules, principles, and practices is available at the NC DEQ's website, at http://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permit-guidance/erosion-sediment-control-planning-design-manual. Once permanent vegetation is established it will be necessary to maintain soil pH and fertility as mentioned above in order to ensure sufficient, healthy, and continuous ground cover for erosion control.

Weed and Vegetation Control

Maintenance of vegetation on site can be accomplished using several options, including but not limited to the following: mowing, weed eaters, herbicides, and sheep. Reductions in fertilizer use on the site will slow growth of vegetation and weeds. Mowing allows the landowner to have the option of laying cut grass or vegetation on grounds of site to decompose and improve long-term soil fertility. In some cases, landowners have used grazing animals, normally sheep, to frequent the solar site grounds and control the vegetation and weeds, which also returns organic matter to the soil on site

Like most lawns and parks, many utility-scale solar facilities in N.C. use a combination of mowing and herbicides to maintain the vegetation. When using herbicides, applicators are advised

to be mindful of label instructions and local conditions. Herbicide persistence is affected by the organic matter content and moisture level of the soil. The importance of complying with legal responsibilities in using the treatments cannot be stressed enough, especially for land located near surface water, land where the surface is near the water table, or where application might carry over to other neighboring lands.

Herbicide use at solar facilities is typically similar to that in agriculture, and the types of herbicides used are similar between the two uses. As such, the impact of herbicides used at solar facilities on neighboring land and the environment is likely to be no more than that of conventional agriculture. Herbicide use differs widely among different crops and farming techniques, so the change in herbicide appliance between agricultural and solar use will vary in individual cases, but in the aggregate, there is no reason to believe that solar facilities will result in more herbicide impacts on neighboring lands than do current agricultural uses.[31] Herbicide use can be discontinued 1-2 years before decommissioning of a site, minimizing any residual impact on crop production at former solar sites.[32]

A number of sites use sheep at low densities to maintain vegetation during the growing season, although the sheep do not fully replace the need for mowing and/or herbicide use. The sheep are leased from sheep farmers, and the demand for sheep at solar facilities has been beneficial for North Carolina's sheep industry.[33] The grazing of sheep at solar facilities incorporates local farmers into the management of the sites, engaging the local community with solar development. The growth of solar farms represents a huge opportunity for the North Carolina sheep industry, with thousands of acres that are fenced well for sheep, and allow North Carolina farmers to diversify into new agricultural products for which there is increasing demand.[34]

Toxicity

There is no significant cause for concern about leaking and leaching of toxic materials from solar site infrastructure.[35] Naturally occurring rain is adequate to generally keep the panels clean enough for good electricity production. If panels do need to be washed, the washing process requires nothing more than soap and water. Additionally, the materials used to build each panel provide negligible risk of toxic exposure to the soil, environment, or people in the community. Details about toxicity for aluminum and zinc are described below, and more information on the potential for human toxicity can be found in the NCSU Health and Safety Impacts of Solar Photovoltaics white paper.

Aluminum

Aluminum is very common in soils around the world, including those common in North Carolina. In fact, the earth's crust is about 7% aluminum, and most soils are over 1% aluminum![36] The aluminum is generally unavailable to plants as long as the soil pH is above about 5.5. In acidic soils many forms of aluminum become more bio-available to plants; this can be toxic to many plant species.[37] This effect is one of the major reason many plants do not tolerate very acidic soils. The use of aluminum building materials releases negligible amounts of aluminum during their useful life because the material is

so corrosion resistant. [38] The aluminum frames of PV modules are anodized which adds a very thin hard coating of aluminum oxide to the exterior of the aluminum that greatly improves aluminum's already-high resistance to corrosion. Therefore, any minute amount of aluminum that could be released by corrosion from aluminum construction materials during the life of a solar project will not materially add to the thousands or millions of pounds of aluminum naturally present in the soil of a typical N.C. solar facility. The common practice of liming soils to maintain appropriate soil pH for crop systems alleviates most, if not all, concerns about aluminum impacting crop growth in the future.

Zinc

Zinc from galvanized components, including support posts for solar panels, can move into the soil.[39] Zinc from building material stockpiles has been previously noted as a localized problem for peanut production in some North Carolina fields.[40] While it is difficult to predict in advance the degree to which this will occur, it is relatively simple to collect soil samples and monitor this situation in existing installations. Analysis of zinc is included in routine soil testing procedures used by the NC Department of Agriculture & Consumer Services Agronomic Services Division Laboratory. Awareness of zinc concentrations in the soil, and any spatial patterns noted with depth and distance from structures, should allow producers to determine if the field is adequate for desired crops as is. If zinc limitations exist, awareness of concentrations and spatial distribution patterns may indicate the potential for deep tillage, liming, or crop selection alternatives required for successful agricultural use. Of the agronomic crops grown in NC, peanuts are the most sensitive crop to zinc toxicity. Based on information from the N.C. Department of Agriculture and Consumer Services, there is risk of toxicity to peanuts when the zinc availability index (Zn-AI) is 250 or higher, particularly in low-pH situations. Risk increases with increasing soil test levels, especially if pH management through a liming program is not followed. For most other crops, zinc toxicity does not become problematic until the Zn-AI index reaches 2,000-3,000.[41]

Pollinators

Solar projects with appropriate vegetation can provide habitat for pollinators, as well as other wildlife.[42] Rather than planting common turf grasses, some solar facilities are starting to use seed mixes of native grasses and pollinator-friendly flowering plants as ground cover in solar facilities.[43,44] This provides habitat for pollinators, which can be beneficial to neighboring farms. Minnesota passed the country's first statewide standards for "pollinator friendly solar" in 2016. According to Fresh Energy, a clean energy nonprofit in St. Paul, more than 2,300 acres of these plants took root near solar panels last year, according to Fresh Energy.[45] Solar facilities can also cooperate with commercial beekeepers to facilitate honey production, although this may conflict with providing habitat for wild pollinators.[46,47] Pollinators provide benefits for agricultural production at nearby farms where insect-pollinated crops are grown[48]

Decommissioning

If land used for a solar facility is to be returned to agricultural use in the future, it will be necessary to remove the solar equipment from the land. This process is known as decommissioning. Decommissioning is basically the construction process in reverse; it involves removal of the solar panels, breakup of support pads, removal of access roads, replacement of any displaced soil, and revegetation.

Solar development often takes place on leased land, although it also occurs on land owned by solar companies. When leased land is involved, it must be determined whether the landowner or the solar developer bears responsibility for decommissioning. Responsibilities for decommissioning are lease-specific in North Carolina. It is important for landowners to consider decommissioning when setting lease terms, although landowners may choose in some cases to accept decommissioning responsibility themselves. Although state rules on solar decommissioning do not currently exist in North Carolina, local jurisdictions can choose to adopt regulations pertaining to decommissioning.

The materials recovered in the decommissioning process have significant economic value, which can help pay for the costs of decommissioning. Some engineering analyses have indicated that the salvage value of recovered materials is more than enough to pay for the removal of all the materials and to return the site to its pre-construction state.[49,50,51,52]

NCSU has produced several resources that provide more information on decommissioning. They include:

- Health and Safety Impacts of Solar Photovoltaics[53]
- Template Ordinance for Solar Energy Development in North Carolina[54]
- Working Paper: State Regulation of Solar Decommissioning[55]
- Landowner Solar Leasing: Contract Terms Explained[56]

Summary

The purpose of this paper is to explore the extent to which competition exists between solar development and agriculture and the extent to which the agricultural productivity of land is affected by solar development. Discussion on this topic was divided into two sections: (1) Understanding the Context of Solar Development and Agriculture in North Carolina and (2) Weighing the Impact of PV Development on Agriculture. In these sections, information and tools were provided to aid in understanding the impact of solar development on agricultural land. Equipped with the information and tools provided by this paper, landowners may be able to better evaluate the viability of solar development on their land.

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Memorandum

Date: July 18, 2022

To: Martha Moore, Virginia Farm Bureau; HB 206 Working Group 1 Member

From: W. Lee Daniels, T.B. Hutcheson Jr. Professor

C: John Ignosh, Virginia Tech Extension, Harrisonburg

Attach: Daniels et al. 2018 Prime Farmland Reclamation Article

I have prepared this memo in response to your email of July 14 where you posed a number of questions regarding several soil quality issues related to development of existing agricultural lands into solar facilities. To my knowledge, there have been no published field studies in Virginia or the surrounding region to date that specifically address actual site impacts of solar development projects. However, I have been actively working on rehabilitation and remediation of lands disturbed by mining, road building, and construction for over 40 years at Virginia Tech. One example of a directly related study on rehabilitation of prime farmlands disturbed by mineral sands mining is attached here that includes 14 years of fully replicated and statistically analyzed field scale results. More details on the range of our related research work efforts and publications can be found at https://landrehab.org/.

Each of your original questions appears below in ***bold font/italics*** followed by my answers based on my regional experience with soil reconstruction and rehabilitation following disturbance. I assume that your Working Group (#1) is relying on the NRCS definition of "prime farmland" for these queries. It is also important to point out that solar development sites undergo a wide range of "disturbance" based on their topography and other site-specific conditions which can be as low as ~10% or include the majority of the site where topsoil is removed and/or extensive grading is required to level panel arrays and other infrastructure.

I have made an effort here to keep my answers to your queries direct and succinct, but I have also included multiple related points for some of them. John Ignosh (copied here) also interacted with me for this reply. I will be happy to provide much more detailed answers and appropriate publications, references and and/or links if you need any more documentation related to my answers below.

Question 1: ***When developing the solar utility facility, there are vegetative ground cover under the panels and in buffers and in areas designated as part of the stormwater requirements. Is there a type of vegetative cover that helps preserve the prime agricultural soils characteristics?***

- The primary objective here must be to maintain a complete vegetative cover to control erosion over time. This will almost always involve perennial herbaceous species and there is a wide array of options for this. Secondary important issues include inclusion of pollinator plants where appropriate, etc.
- The chosen vegetative cover will need to be compatible with regular maintenance/ mowing needs around the panel arrays and other infrastructure. In areas (buffers) that don't require frequent mowing, more alternatives including woody shrubs could also be viable on some sites.
- Assuming the site is maintained in solar production for 20 to 30 years, the choice of vegetation per se will have little impact on long term soil quality vs. the issues raised below. However, this assumes that the cover can readily root throughout at least the topsoil (A horizon) zone.

Question 2: What is the impact that microclimates have on prime ag soil chemistry?

- While there will certainly be a difference in both soil temperature and moisture content under established panels vs. areas between rows or in buffers, the long term impacts relative to return of the site to agricultural production will be minimal relative to the other issues discussed below.
- Shaded areas under panels will be cooler over time which would aid in the maintenance of soil organic matter, assuming they remain well vegetated. However, they may also be drier, which would tend to counteract the temperature effects.
- This comparison will also be complicated by the differences in overall vegetation growth and rooting between the areas beneath panels vs. in buffers etc. If the areas under panels do not support the same level of overall vegetation cover and production as open areas, that will also influence soil properties over the decades of active management.
- Regardless, the overall effects of soil disturbance (cut/fill) and site fertilization and liming practices will have a dominating influence on soil chemical properties over time rather than local microclimate. In particular, where subsoil (B horizon clays) are in the final reconstructed surface, soil pH and essential nutrients (particularly P) will be very low and will need appropriate fertilization/liming both initially and over time.

Question 3: What happens to the prime ag soil characteristics if you stockpile the topsoil and reapply?

- First of all, it is important to point out that the productivity of a prime farmland soil is a combined function of its topsoil (A horizon) *and* subsoil (B horizon) characteristics. In combination, they must meet the overall rooting depth and water holding requirements of the intended cropping system.
- When topsoil is removed from a disturbed site and stockpiled, it typically loses much of it's active microbial biomass over a time period of months to years. Associated with this, we usually see a slow decline in organic matter content and usually the pH drops as well.
- Whenever possible, topsoil stockpiles should be no higher than 3-4 to feet with sideslopes of 2:1 or shallower and maintained in deep-rooted vegetation . It is also important to keep the base of the stockpile well-drained (e.g. unsaturated).

Question 4: Does soil retain its prime ag soil characteristics if it is compacted and then decompacted?

- Soil compaction is by far and away the most common soil limitation found on all disturbed sites. This includes mined lands, road corridors, construction sites, home development sites, etc.
- The extent to which the soil at a given solar site becomes excessively compacted will be highly variable and could range widely across the site. Some areas like external buffers may experience very little soil compaction that needs remediation. Others will be highly, or completely, disturbed and need variable remediation efforts as described below.
- Soil compaction is best evaluated via measuring soil bulk density (g/cm^3) which directly limits plant rooting and water movement/drainage when found at values > ~1.80 for sandy soils and > ~1.45 for clayey soils. However, rooting and water movement are also affected positively by the retention or redevelopment of soil structure (aggregates) in both the topsoil and subsoil layers.
- Most construction activities that involve cut/fill, site grading and removal and redistribution of topsoil will lead to soil compaction to some extent that should be evaluated and then remediated if/when bulk density exceeds critical values.
- If the topsoil layer is compacted above critical thresholds, revegetation efforts will generally fail or you will observe initial success with plant establishment that then "burns out" once rainfall becomes limited.
- High surface soil bulk density also limits infiltration rates and therefore increases local runoff rates. This should be accounted for in stormwater modeling efforts.
- Remediation (decompaction) of high bulk density soils needs to be implemented down to the projected desired rooting depth for the intended cropping or vegetation management system. For example, deep rooted crops like corn require 30" or more of available rooting depth to achieve prime farmland levels of productivity. Hayland/pasture systems require less rooting depth, but still need to exploit the upper subsoil layers.
- Overly compacted subsoils and topsoil layers (horizons) need to remediated via appropriate tillage practices and this often requires two different tillage events.
- While some limited "loosening" of compacted topsoil layers will occur due to plant rooting and seasonal freeze/thaw and wet/dry cycles, this will not occur any deeper than 4 to 6 inches in our region.
- There is a range of tillage implements available for loosening highly compacted topsoil and subsoil layers. However, many of the larger implements we commonly employ on mining sites such as deep shank rippers and or/chisel plows will be of limited utility on solar sites once the panels and other infrastructure are in place. Smaller implements (e.g. roto-tillers, air knives or single shank rippers) would need to be utilized.
- Soil moisture content has a profound influence on the effectiveness of any tillage regime. If the soil is too dry, the implements will pull up large chunks of soil rather than shattering them and fuel use increases. If the soil is too wet (particularly in the subsoil), ripper shanks simply pass through the soil without shattering it. Thus the timing of any "decompacting efforts" can be critical
- There are no "magic bullets" for using chemical amendments (e.g. gypsum) or deep rooted plant species to overcome excessive compaction.

- Our experience across a range of prime farmland soil reconstruction sites (following mining) indicates that even with full soil profile reconstruction, deep ripping of subsoils, frequent tillage of returned topsoils, and correct use of lime and fertilizers based on soil testing, we should expect an initial ~25% reduction in productivity. In certain years with poor weather, yield losses can be even higher. However, we also see indications that over longer periods of time (e.g. 5 to 10 years), post reclamation productivity may approach 90%, particularly if internal soil drainage is restored. Similar results have been obtained by a range of researchers reclaiming prime farmland soils in the upper midwestern USA.

I hope this memo answers your direct questions and I will be happy to follow-up with you and your Working Group as requested and needed.

Large-Scale Solar Site Development & Legacy Soil Productivity Considerations

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Image from Dominion published by Virginia Mercury – Louisa County

Site Development Challenges

- Soil disturbance can vary widely from < 10% to regrading of the majority of the site.
- Major disturbances are roads, trenches for internal cable distributions, regrading to level panel arrays, stormwater basins, local pad compaction for structural support, etc.
- Acidic subsoil materials left or exposed the at surface need heavy liming and extra P applications.
- Initial/construction E&S controls obviously essential
- Must avoid acid forming materials (ASS) at all costs
- Every site x design x disturbance impact is unique!

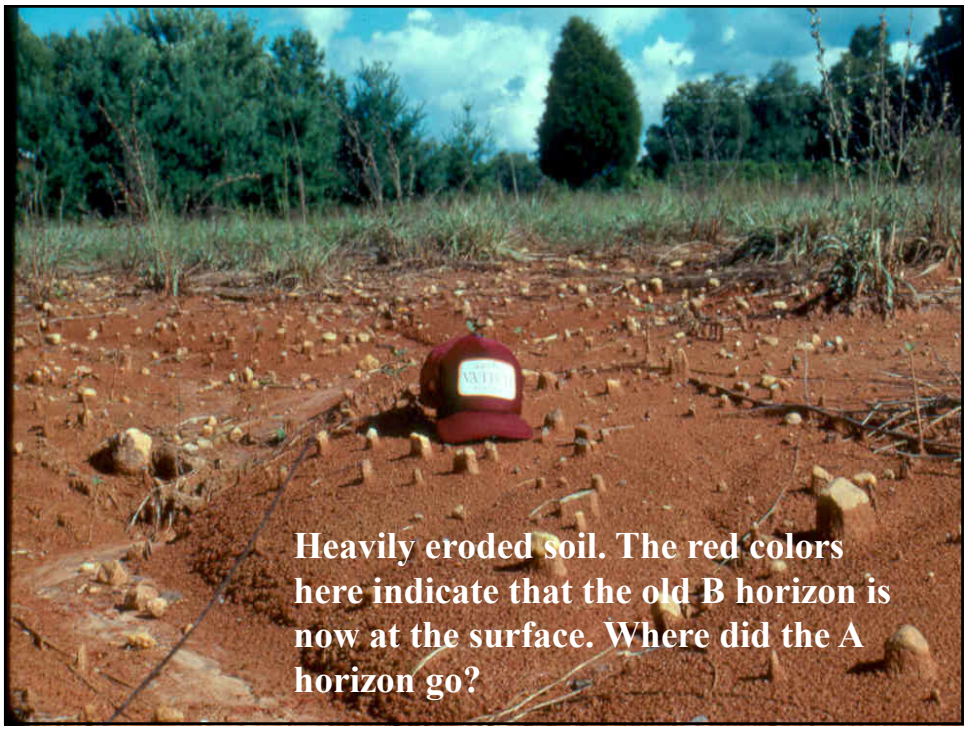
Well-vegetated relatively young site. To be clear, ***I don't question our overall ability to successfully stabilize and revegetate these facilities!*** Photo courtesy of John Ignosh



However, many sites will be extensively disturbed with large exposures of eroded or exhumed subsoil materials.



Image from Soilworks.com; marketer of soil stabilization/dust control products.



Heavily eroded soil. The red colors here indicate that the old B horizon is now at the surface. Where did the A horizon go?




12. 15. 2003

Major Issues with Disturbed Soils

- **Compaction is the dominant long term soil/plant management issue in urban soils, VDOT & utility corridors, mining reclamation, created wetlans, etc.**
- **Cuts and fills on a site are fundamentally different in management & remediation needs:**
  - **A. Cuts often have topsoil removed or highly variable properties with depth. May hit acid sulfate soil (ASS) materials in some areas.**
  - **B. Fills are commonly highly compacted and "layered" with dissimilar materials.**
  - **C. Both are commonly acidic and very low in plant-available P.**
  - **D. On a given site, depending on setting, slope & extent of excavation, you can/will have highly variable soil quality, often over short-range.**
- **Fortunately, low pH and fertility are *relatively easy* to deal with, compaction is not.**



Highly compacted topsoil layer due to bulldozer re-grading (only two passes over disturbed subsoil materials at fully reclaimed mineral sands mining site in Dinwiddie County (details later). Can only be remediated via deep tillage. Most revegetation species need at least 6" to > 18" of effective rooting.

Compaction Problems

- Direct impedance of rooting; vegetation under stress or dies.
- Widely fluctuating winter (wet) vs. summer (desert like) conditions
- Poor infiltration & water holding; increased local runoff
- Avoid "voodoo products" that loosen compaction or make other "promises".



Rooting is directly limited by soil bulk density between ~1.45 (clay) and 1.85 (coarse sand).

Loamy soil with Db = 1.75 g/cm^3 at 6".



Effects of subsoil compaction on 5-year old loblolly pine plantings at Iluka mineral sands soil reconstruction site. This site received deep ripping of the subsoil and topsoil replacement.

Even tap-rooted pines cannot penetrate when the subsoil B.D. is too high. At This site, subsoil is clay loam and the bulk density is 1.7 to 1.8 g/cm^3

Upper image shows taproot deflected sideways at 6"; lower image shows lateral extent of finer lateral roots extending to acquire water and nutrients.

What can we do?

- Save, properly store, and reapply topsoil
- Use liberal amounts of lime, P and organic matter amendments on both exposed subsoils *and* returned topsoil layers
- Apply tillage (ripper, chisel plow, etc) to reconstructed areas to both subsoil (Bt horizon) and topsoil (A horizon)
- Anticipate a second round of remedial actions needed when old infrastructure is removed in 20 to 30 years?



2X Ripper Plot at Iluka Resources in Dinwiddie/Sussex Co.; loosens/shatters down to ~ 30 inches.

Here the ripper is running back up the "middles" of previous pass. This doubles the rips per unit area. Another option is to "cross-rip" if possible. Obviously, large equipment use on a USS site will be complicated by installed panel arrays!

Success is dependent upon ideal moisture so that minimal subsoil being pulled up.

Chisel plow plot operating at tillage/ripper study in Dinwiddie County. Smaller scale (narrow) tillage loosening to 12" or so can also be accomplished via a pull-behind roto-tiller, smaller rippers, etc.



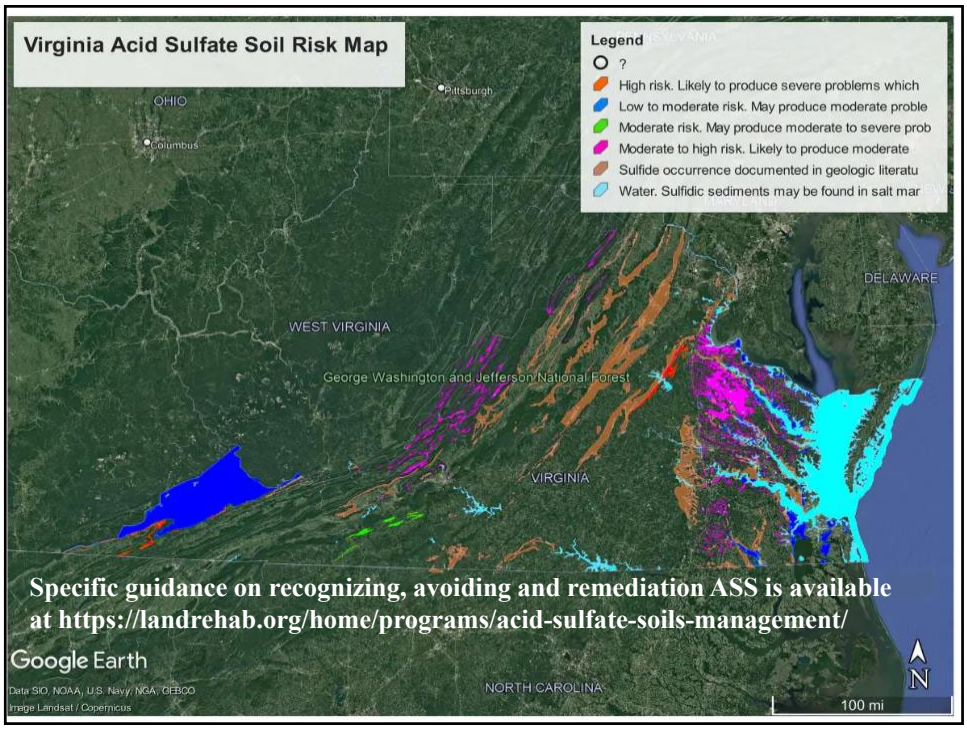


Acid sulfate soil impacts to soil quality in a subdivision in Fredericksburg and immediately adjacent (behind house) surface water impacts.

Naturally occurring S containing sediments and rocks are frequently exposed by construction activity and then quickly oxidize to sulfuric acid and generate very low pH (<3.8) and soluble metal (Al/Fe/Mn) soil/water conditions.

Sulfidic materials underlie much of the Coastal Plain at variable depths (usually > 5 to 10 feet). They also are common in certain regions of the Piedmont.

On solar sites, most likely encountered in lower landscapes in stormwater ponds



Specific guidance on recognizing, avoiding and remediation ASS is available at https://landrehab.org/home/programs/acid-sulfate-soils-management/



Remediated yard, summer 2006



Neighbor's yard, Summer 2006

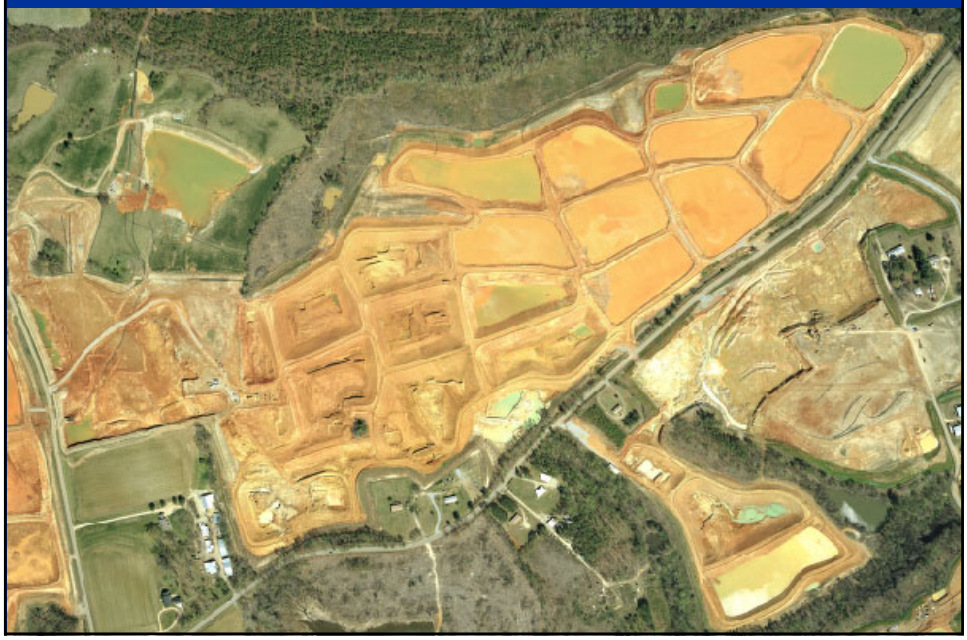




Operational Phase Soil Challenges

- Soil compaction of certain areas is inevitable during the construction phase and may be difficult to remediate once the site is operational. This will affect infiltration/runoff partitioning.
- Panels (particularly fixed) concentrate local runoff onto a "drip line" that can lead to local rilling & enhanced runoff, etc.
- Actual effects of panel arrays on stormwater runoff peak flows are not well studied (Not my area; David Sample is our lead on this!). VT is looking for cooperators to install field monitoring arrays. Our "VT Solar Panel" efforts coordinated by John Ignosh (jignosh@vt.edu).
- Establishing and maintaining uniform vegetation under/between certain panel arrays; particularly low fixed panels can be challenging. Many of these areas will also be highly disturbed.

Active mining at Old Hickory. Over 2000 acres of land have been disturbed to date with approximately 600 returned to vegetation.

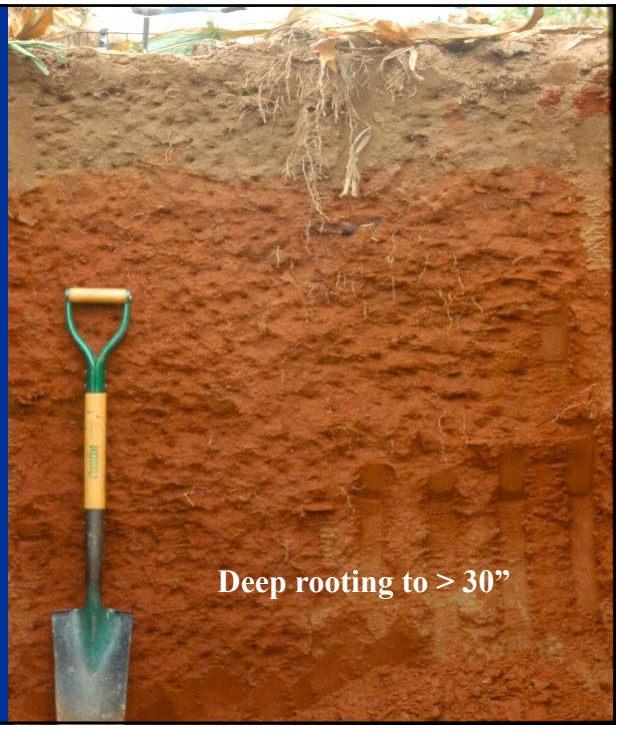




Surface (topsoil) enrichment of ilmenite+rutile+zircon is frequently > 15% W:W. Subsoil is often > 5%.

Typical highly productive soil in the Old Hickory area. The topsoil is usually 3x enriched in HM relative to subsoil.

Productivity of this soil in greatly enhanced by the low bulk density, well structured subsoil that readily allows rooting to 36” or more.

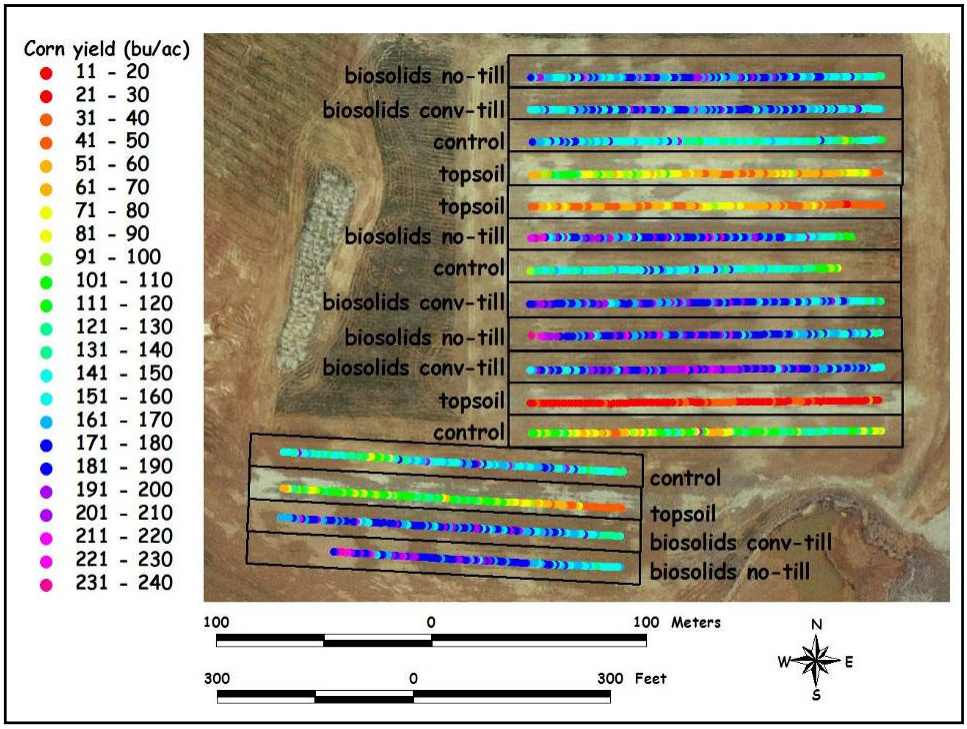


Sequence of photos (by Chuck Stilson/Iluka) showing ripping of subsoil and application of topsoil for final reclamation. The topsoil is spread with dozers and then tilled/ripped again to loosen compaction. Ripping usually occurs below topsoil; but can also cut both.





Lime (5 T/Ac) + P_2O_5 (350 lb/Ac) are added to the subsoil before ripping and then lime + N-P-K are added again to the topsoil based on soil test results.


Corn yield (bu/ac)
11 - 20
21 - 30
31 - 40
41 - 50
51 - 60
61 - 70
71 - 80
81 - 90
91 - 100
101 - 110
111 - 120
121 - 130
131 - 140
141 - 150
151 - 160
161 - 170
171 - 180
181 - 190
191 - 200
201 - 210
211 - 220
221 - 230
231 - 240
biosolids no-till
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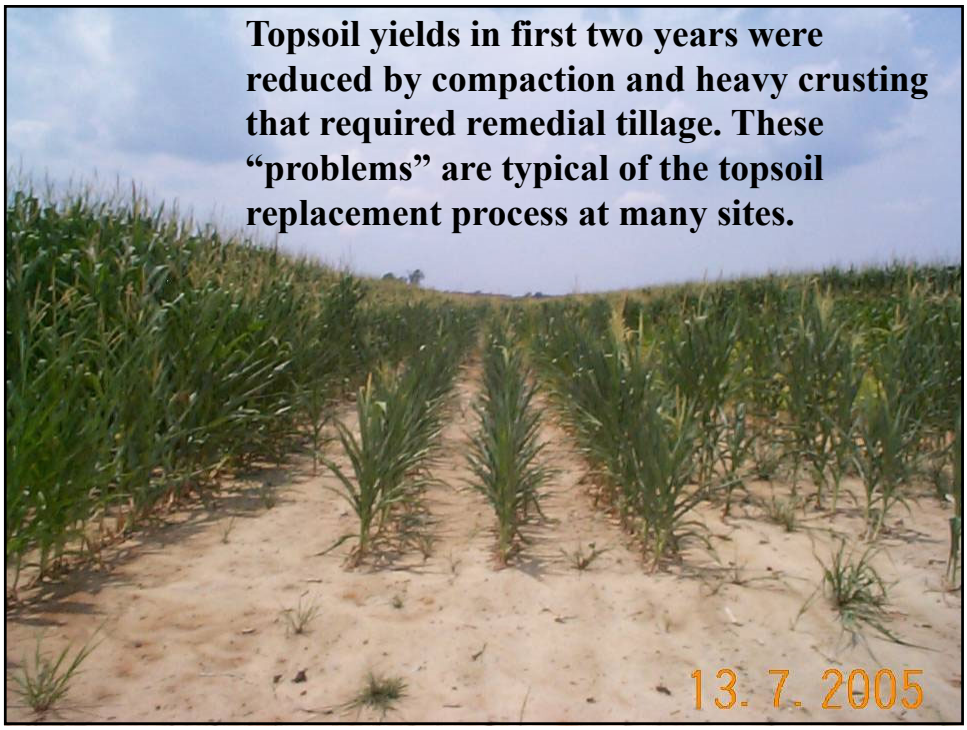

Topsoil yields in first two years were reduced by compaction and heavy crusting that required remedial tillage. These "problems" are typical of the topsoil replacement process at many sites.
13. 7. 2005

TABLE 2

Crop yields from the Carraway-Winn Reclamation Research Farm, a local unmined prime farmland soil, and Dinwiddie County averages as applicable. Crops on all areas received identical management, including irrigation as needed.

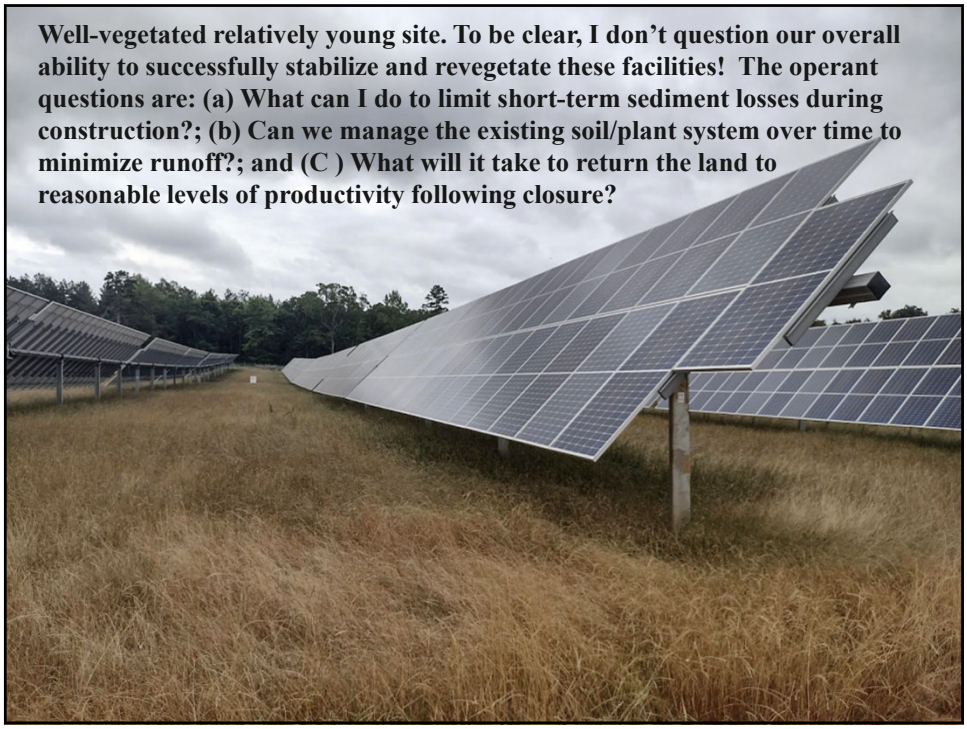
Treatment	2005	2006	2007	2008		2009	2010		2011	2012		2013
	Corn (Mg/ha)	Wheat (Mg/ha)	Corn (Mg/ha)	Wheat (Mg/ha)	Soybean (Mg/ha)	Cotton (Mg/ha)	Wheat (Mg/ha)	Soybean (Mg/ha)	Corn (Mg/ha)	Wheat (Mg/ha)	Soybean (Mg/ha)	Corn (Mg/ha)
LBS-CT[a]	10.85 a[b]	5.04 a	3.62 b	6.27 a	2.42 ab	1.17 a	2.74 a	0.96 a	4.77 a	3.17 a	2.49 a	12.99 a
LBS-NT	10.90 a	5.16 a	3.43 b	5.65 a	2.51 a	1.18 a	2.76 a	1.11 a	4.75 a	3.20 a	2.45 a	13.03 a
TS	3.79 c	4.29 b	7.23 a	4.89 b	2.20 ab	1.18 a	2.68 a	1.15 a	4.13 a	3.18 a	2.51 a	12.24 a
C	8.53 b	4.10 b	7.30 a	4.64 b	2.11 b	1.05 a	2.51 a	1.10 a	5.30 a	3.11 a	2.34 b	11.87 a
UM	14.36	6.90	9.91	3.90	3.21	1.62	4.72	1.73	12.48	4.45	2.21	16.01
COMP	6.07	4.33	3.18	1.75	ND[c]	ND	ND	ND	ND	ND	ND	ND
County average	6.70	3.76	3.9	4.90	1.75	1.18[d]	3.27	1.01	8.2	4.51	2.51	9.89

a. LBS – lime stabilised biosolids @ 78 Mg/ha; CT – conventional tillage; NT – no tillage; TS – 15 cm topsoil return; C – limed and fertilised control; UM – unmined control area; COMP – compacted, non-ripped zone. b. Means in the same column followed by the same letter are not significantly different at $\alpha = 0.05$. Data analysed via one-way analysis of variance followed by pairwise contrasts (Fisher's protected least significant difference). c. ND – not determined. d. Virginia South-Eastern Agricultural District average (county average not available).

Long term crop yields on reconstructed prime farmland soils following mineral sand mining. All soils were deep ripped initially and limed, fertilized and tilled annually as/if needed. Compared with adjacent unmined lands under identical management, *crop yields were reduced by ~25% in most years*, but often exceeded overall county average yields for "all soils in production for that crop".

Long-Term Site Closure Challenges

- **Removal of site infrastructure will result in another round of soil disturbance, including more soil compaction, re-exposure of subsoil materials to clear subsurface conduits etc.**
- **Return to previous land uses, particularly prime farmland rowcrop agriculture will be difficult unless large amounts of soil amendments (compost, lime, P, etc.) and heavy tillage (ripping and repeated chisel-plowing etc.) regimes are employed.**
- **Heavily disturbed areas (roads and extensively graded areas) will more than likely have hayland/pasture or forestry as their highest and best use.**
- **Any assurance that highly productive agricultural lands (e.g. rowcrops) can be readily returned to even approach existing (>75%) levels of soil productivity must be made *very carefully*.**



Large-Scale Solar Site Development & Legacy Soil Productivity Considerations

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ISSUE:

Consideration of a Siting Agreement for the Carver Solar Energy Generation Project

BACKGROUND:

At its work session on August 3, 2023, the Board adopted a motion to rescind the action of its previous vote on February 23, 2023.

At the Board's regular meeting on February 23, 2023, Supervisor Jefferson moved to approve the Conditional Use Permit Application for the Carver Solar Energy Generation Facility with the recommendations of staff and the additional conditions proposed by the applicant. The motion was defeated (3-2) with Supervisors Grice and Jefferson voting in favor of the motion and Supervisors McCarty, Acree and Rosie voting against the motion.

Carver Solar Energy Generation desires to construct and operate a solar facility in the County. In this regard, the Code of Virginia allows the County and Carver Solar Energy Generation to enter into a siting agreement relative to solar facilities.

The Board may wish to discuss/reconsider the application for the Carver Solar Energy Generation Facility.

BUDGETARY IMPACT:

This project could potentially provide additional revenues for up to 40 years.

RECOMMENDATION:

Per the Board's discussion and direction.

ATTACHMENTS:

Description	Type	Upload Date
Siting Agreement (Redline)	Backup Material	8/9/2023

SOLAR FACILITY SITING AGREEMENT

This Solar Facility Siting Agreement (the "Agreement"), dated as of _____, 2023 (the "Effective Date"), is by and between Isle of Wight County, Virginia, a political subdivision of the Commonwealth of Virginia (the "County") and Carver Solar I, LLC a Virginia limited liability company (the "Applicant"). The County and the Applicant are herein each a "Party" and collectively, the "Parties".

RECITALS

WHEREAS, the Applicant intends to develop, build, operate, and decommission a utility scale solar facility and associated substations (the "Project") on certain parcels of land identified as Isle of Wight County Tax Map Parcel Numbers 52-01-028, 52-01-034, 52-01-035, 52-01-036, 45-01-059, 45-01-059A, 45-01-061, 45-01-061B, 45-01-061C, 45-01-065, 45-01-068, 52-01-037, 52-01-039, 53-01-001, 53-01-003, 53-01-003M, 53-01-006, 53-01-022, 53-01-22E, and 46-01-019A (collectively, the "Property");

WHEREAS, pursuant to Chapter 22, Title 15.2, Article 7.3 of the Code of Virginia titled "Siting of Solar Energy Facilities", the Applicant and the County may enter into a siting agreement for solar generating facilities;

WHEREAS, after negotiation between the County and the Applicant, the Parties desire to enter into this Agreement to provide financial compensation to the County to address any impacts of the Project and to provide community benefits that address capital needs set out in the County's capital improvement program, current fiscal budget, or fiscal fund balance policy;

WHEREAS, Virginia Code § 58.1-2636 permits the County to adopt an ordinance assessing a revenue share of up to $1,400.00 per megawatt (subject to certain increases as provided in Va. Code § 58.1-2636(A)(2)), as measured in alternating current generation capacity of the nameplate capacity of the Project (a "Solar Revenue Share Ordinance");

WHEREAS, the County has not adopted a Solar Revenue Share Ordinance but may choose to do so at a later date;

WHEREAS, Pursuant to Virginia Code § 58.1-3660, if the County adopts a Solar Revenue Share Ordinance, the solar photovoltaic (electric energy) systems associated with the Project, which are considered "certified pollution control equipment," will be exempt from all state and local taxation pursuant to Article X, Section 6(d) of the Constitution of Virginia (the "Tax Exemption");

WHEREAS, in the absence of a Solar Revenue Share Ordinance, such certified pollution control equipment would be subject to local machinery and tools taxation as provided by state law and local ordinances, including § 58.1-3660 (C) and (D), commonly known as the Machinery and Tools Tax Stepdown ("M&T Taxes");

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WHEREAS, the Applicant has agreed to the payments and financial terms contained herein, including payment of the M&T Taxes together with voluntary annual payments supplementing the M&T Taxes in amounts that would result in a total annual payment equal to the greater of the M&T Taxes or what would otherwise be due under a Solar Revenue Share Ordinance, regardless of whether the County actually adopts a Solar Revenue Share Ordinance; and

WHEREAS, pursuant to the requirement of Virginia Code § 15.2-2316.8(B), the County held a public hearing in accordance with subdivision A of Virginia Code § 15.2-2204 for the purpose of considering this Agreement, after which a majority of a quorum of the members of the Isle of Wight County Board of Supervisors approved this Agreement.

NOW, THEREFORE, pursuant to Chapter 22, Title 15.2, Article 7.3 of the Code of Virginia, intending to be legally bound hereby and in consideration of the mutual covenants contained herein, the receipt and sufficiency of which are hereby acknowledged, the County and the Applicant do hereby agree as follows:

Article I

Project Features, Conditions and Mitigation

1. CUP Conditions. The Applicant acknowledges and agrees that it is subject to all the terms and conditions contained in the conditional use permit ("CUP") approved by the Board of Supervisors for the Project, which is attached hereto as **Exhibit A** and is hereby incorporated herein. Violation by the Applicant or by any of Applicant's agents, assigns, or successors in interest of any terms and conditions of the CUP or of any other applicable zoning requirements shall constitute a violation of this Agreement.

2. Annual Valuation of Taxable Equipment; Updates. Prior to the Commercial Operation Date (defined below), Applicant agrees to provide County with a detailed list of capital equipment, including but not limited to solar photovoltaic equipment proposed to be installed, whether or not it has yet been certified as pollution control equipment by the State Corporation Commission or Virginia Department of Environmental Quality, and lists of all other taxable tangible property. Thereafter, on an annual basis, Applicant shall provide County with any updates to this information, including but not limited to all new or replacement solar panels and all other equipment. The Applicant agrees to provide the County all information it may in the future provide to the Virginia State Corporation Commission for the Commission's use in valuing such property for taxation purposes. In addition, prior to the Commercial Operation Date, the Applicant shall provide proof of payment for all components of the Project installed prior to the Commercial Operation Date. Applicant shall further submit proof of payment for any additional or replacement component installed during the life of the Project, proof of which shall be updated annually on or before the anniversary of the Commercial Operation Date, and if no such component is installed in any given year, notice of such shall also be filed with the County on or before the anniversary of the Commercial Operation Date.

Article II

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Voluntary Payments

1. Purpose. The Parties acknowledge that the County has certain capital needs important to the economic, physical, and social wellbeing of the citizens and businesses within the County. Additionally, in recognition that the Project may generate the need for certain County services, the Applicant agrees to make the financial payments set out in **Exhibit B** attached hereto and permitted under Virginia Code § 15.2-2316.6, *et seq*.

2. Payment Structure. The Applicant shall make payments to the County, as set forth in Exhibit B (each a "Payment" and collectively, the "Payments"). The Payments shall begin no later than six (6) months following the date on which the Project commences commercial operation ("Commercial Operation Date") on a prorated basis for that year. As used herein, "Commercial Operation Date" means the date on which the Project becomes fully operational and begins providing electricity to the grid. Generation of test energy shall not be deemed to have triggered the Commercial Operation Date. The Payments shall be due and payable in one lump sum on or before December 1st each year thereafter until the earlier of one of the following (the "Termination Date"): (i) the Applicant's commencement of the decommissioning of the Project; (ii) the cessation of operation of the Project for a continuous period of longer than one (1) year; or (iii) if not previously terminated by (i) or (ii), and the Project remains in operation at the end of the fortieth (40^{th}) calendar year after the Commercial Operation Date, the conclusion of any renewal term, as described in Article III, Section 1 hereof. If the Termination Date is established pursuant to section (ii) above and the Project restarts commercial operation within two (2) years of that date, this Agreement shall be reactivated and its terms fully enforceable by the County against Applicant for the remaining term of the Agreement. The Parties acknowledge that, except as otherwise provided herein, the Applicant's obligation to make the Payments shall be conditioned upon the occurrence of the Commercial Operation Date.

3. Statutory Structure of Payments; **Statement of Benefit**. The Applicant agrees that, by entering into this Agreement, pursuant to Virginia Code § 15.2-2316.6, *et seq*., the voluntary portions of the Payments are authorized by statute, and the Applicant acknowledges that it is bound by law to make the Payments in accordance with this Agreement. The Parties acknowledge that this Agreement is fair and mutually beneficial to them both. The Applicant acknowledges that this Agreement provides for a clear and predictable stream of future payments to the County in amounts fair to both Parties.

4. Use of Payments by the County. The Payments may be used for any lawful purposes including any of the following purposes: (a) to fund the capital improvement program of the County; (b) to meet needs of the current fiscal budget of the County; (c) to supplement or establish any fund for which the County maintains a balance policy; and (d) to support broadband funding, all as permitted Virginia Code § 15.2-2316.7.

Article III

Miscellaneous Terms

1. Term; Termination. This Agreement shall commence on the Effective Date and shall continue until the Termination Date. **The Applicant shall have no obligation to make**

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Payments after the Termination Date. The Payment due for the year in which the Project or material part thereof is decommissioned shall be prorated as of the Termination Date. Following the conclusion of the fortieth (40th) calendar year after the Commercial Operation Date, for each subsequent year of Commercial Operation, this Agreement shall automatically renew for additional terms of one year, from January 1 to December 31 of each calendar year, until written notice of termination is given by either Party, at least one year in advance of the Termination Date. The termination of this Agreement shall not limit the Applicant's legal obligation to pay local taxes in accordance with applicable law at such time and for such period as the Project remains in operation.

2. Mutual Covenants. The Applicant covenants to the County that it will pay the County the amounts due hereunder when due in accordance with the terms of this Agreement, and will not seek to invalidate this Agreement or otherwise take a position adverse to the purpose or validity of this Agreement. The County covenants to the Applicant that it will not seek to invalidate this Agreement or otherwise take a position adverse to the purpose or validity of this Agreement.

3. No Obligation to Develop. The Applicant has no obligation to develop or construct the Project and this Agreement does not require any Payments until after the Commercial Operation Date. Any test energy or other energy produced prior to the Commercial Operation Date shall not trigger any payments under this Agreement. It is understood that development of the Project by Applicant is contingent upon a number of factors including, but not limited to regulatory approvals, availability and cost of equipment and financing, and market demand for the Project's energy. No election by the Applicant to terminate, defer, suspend, or modify plans to develop the Project shall be deemed a default of Applicant under this Agreement.

4. Successors and Assigns. This Agreement shall be binding upon the successors or assigns of the Applicant, and the obligations created hereunder shall be covenants running with the Property. If Applicant sells, transfers, leases, or assigns all or substantially all of its interests in the Project or the ownership of the Applicant, this Agreement will automatically be assumed by and be binding on the purchaser or transferee. Upon such assumption, the sale, transfer, lease, or assignment shall relieve the Applicant of all obligations and liabilities under this Agreement accruing from and after the date of sale or transfer, and the purchaser or transferee shall automatically become responsible under this Agreement. The Applicant shall execute such documentation as reasonably requested by the County to memorialize the assignment and assumption by the purchaser or transferee.

5. Execution of Agreement Deems Project "Substantially In Accord" with County's Comprehensive Plan. Pursuant to Va. Code § 15.2- 2316.9(C), execution of this Agreement deems the Project to be substantially in accord with the County's Comprehensive Plan in satisfaction of the requirements of Va. Code § 15.2-2232.

6. Memorandum of Agreement. A memorandum of this Agreement, in a form substantially similar to that attached as **Exhibit C** hereto, shall be recorded in the land records of the Clerk's Office of the Circuit Court of the County of Isle of Wight, Virginia. Such recordation shall be at the Applicant's sole cost and expense and shall occur as soon as reasonably practicable after the Effective Date. If the Applicant chooses to not develop the Project, in its sole discretion,

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the Applicant shall execute a release of the memorandum filed in the aforementioned Clerk's Office.

7. Notices. Except as otherwise provided herein, all notices required to be given or authorized to be given pursuant to this Agreement shall be in writing and shall be delivered or sent by registered or certified mail, postage prepaid, by recognized overnight courier, or by commercial messenger to:

Isle of Wight County, Virginia
P.O. Box 80
17090 Monument Cir.
Isle of Wight, VA 23397
Attn: Randy R. Keaton
County Administrator

With a copy to:

Robert W. Jones, Jr., County Attorney
P.O. Box 80
Isle of Wight, VA 23397

Carver Solar I, LLC
c/o General Counsel
1105 Navasota Street
Austin, Texas 78702

With a copy to:

~~John G. "Chip" Dicks~~
D. Scott Foster, Jr.
Gentry Locke
P.O. Box 780
Richmond, Virginia 23218

The County and the Applicant, by notice given hereunder, may designate any further or different persons or addresses to which subsequent notices shall be sent.

8. Governing Law; Jurisdiction; Venue. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE COMMONWEALTH OF VIRGINIA, WITHOUT REGARD TO ANY OF ITS PRINCIPLES OF CONFLICTS OF LAWS OR OTHER LAWS WHICH WOULD RESULT IN THE APPLICATION OF THE LAWS OF ANOTHER JURISDICTION. THE PARTIES HERETO (A) AGREE THAT ANY SUIT, ACTION OR OTHER LEGAL PROCEEDING, AS BETWEEN THE PARTIES HERETO, ARISING OUT OF OR RELATING TO THIS AGREEMENT SHALL BE BROUGHT AND TRIED ONLY IN THE CIRCUIT COURT OF ISLE OF WIGHT

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COUNTY, VIRGINIA, (B) CONSENT TO THE JURISDICTION OF SUCH COURT IN ANY SUCH SUIT, ACTION OR PROCEEDING, AND (C) WAIVE ANY OBJECTION WHICH ANY OF THEM MAY HAVE TO THE LAYING OF VENUE OR ANY SUCH SUIT, ACTION, OR PROCEEDING IN SUCH COURT AND ANY CLAIM THAT ANY SUCH SUIT, ACTION, OR PROCEEDING HAS BEEN BROUGHT IN AN INCONVENIENT FORUM. THE PARTIES HERETO AGREE THAT A FINAL JUDGMENT IN ANY SUCH SUIT, ACTION, OR PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW.

9. Confidentiality. This Agreement, once placed on the docket for consideration by the Isle of Wight County Board of Supervisors, is a public document that is subject to production under the Virginia Freedom of Information Act ("FOIA"). The County understands and acknowledges the Applicant, and as applicable, its associates, contractors, partners and affiliates utilize confidential and proprietary "state-of-the-art" information and data in their operations ("Confidential Information"), and that disclosure of any such information, including, but not limited to, disclosures of technical, financial or other information concerning the Applicant or any affiliated entity could result in substantial harm to them and could thereby have a significant detrimental impact on their employees and also upon the County. The County acknowledges that during the development and negotiation of this Agreement, certain Confidential Information may be, or may have been, shared with the County by the Applicant. The Applicant agrees to clearly identify any information it deems to be Confidential Information and not subject to mandatory disclosure under FOIA or other applicable law as Confidential Information at the time it provides such information to the County. The County agrees that, except as required by law and pursuant to the County's police powers, neither the County nor any employee, agent, or contractor of the County will knowingly or intentionally disclose or otherwise divulge any such Confidential Information to any person, firm, governmental body or agency, or any other entity unless a request for such Confidential Information is made and granted under an applicable provision of Local, State or Federal law. Upon receipt of such a request but before transmitting any documents or information which may contain Confidential Information to the requestor, the County shall contact the Applicant to review the request for information and associated documents to determine if any Confidential Information is at risk of disclosure. If Confidential Information exists, the Applicant may intervene on behalf of the County and defend against disclosure of the Confidential Information. The County agrees to cooperate in this defense and to the extent allowed by law, work to protect the Confidential Information of the Applicant.

10. Severability; Invalidity Clause. Any provision of this Agreement that conflicts with applicable law or is held to be void or unenforceable shall be ineffective to the extent of such conflict, voidness, or unenforceability without invalidating the remaining provisions hereof, which remaining provisions shall be enforceable to the fullest extent permitted under applicable law. If, for any reason, including a change in applicable law, it is ever determined by any court or governmental authority of competent jurisdiction that this Agreement is invalid, then the Parties shall, subject to any necessary County meeting vote or procedures, undertake reasonable efforts to amend and or reauthorize this Agreement so as to render the invalid provisions herein lawful, valid, and enforceable. If the Parties are unable to do so, this Agreement shall terminate as of the date of such determination of invalidity, and the Property and Project will thereafter be assessed and taxed

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as though this Agreement did not exist. The Parties will cooperate with each other and use reasonable efforts to defend against and contest any challenge to this Agreement by a third party.

11. **Entire Agreement**. This Agreement and any exhibits or other attachments constitute the entire agreement and supersedes all other prior agreements and understandings, both written and oral, between the Parties hereto with respect to the subject matter hereof. No provision of this Agreement can be modified, altered or amended except in a writing executed by all Parties hereto.

12. **Construction**. This Agreement was drafted with input by the County and the Applicant, and no presumption shall exist against any Party.

13. **Force Majeure**.

A. "Force Majeure Event" means the occurrence of:

(i) an act of war (whether declared or not), hostilities, invasion, act of foreign enemies, terrorism or civil disorder;

(ii) a strike or strikes or other industrial action or blockade or embargo or any other form of civil disturbance (whether lawful or not), in each case affecting on a general basis the industry related to the construction, operation, or maintenance of the Project, as for example but not in limitation, the interruption in the supply of replacement solar panels, and which is not attributable to any unreasonable action or inaction on the part of the Applicant or any of its subcontractors or suppliers and the settlement of which is beyond the reasonable control of all such persons;

(iii) specific incidents of exceptional adverse weather conditions in excess of those required to be designed for that are materially worse than those encountered in the County during the twenty (20) years prior to the Effective Date;

(iv) tempest, earthquake, or any other natural disaster of overwhelming proportions and the disruption of operations resulting therefrom;

(v) discontinuation of electricity supply, or unanticipated termination of a power purchase agreement;

(vi) other unforeseeable circumstances beyond the control of the Parties against which it would have been unreasonable for the affected Party to take precautions and which the affected Party cannot avoid even by using its best efforts, including quarantines ordered by competent governmental authority in the event of a public health emergency, which in each case directly causes either party to be unable to comply with all or a material part of its obligations under this Agreement.

B. Neither Party will be in breach of its obligations under this Agreement or incur any liability to the other Party for any losses or damages of any nature whatsoever incurred or suffered by that other Party if and to the extent it is prevented from carrying out those obligations by, or

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such losses or damages are caused by, a Force Majeure Event except to the extent that the relevant breach of its obligations would have occurred, or the relevant losses or damages would have arisen, even if the Force Majeure Event had not occurred.

C. As soon as reasonably practicable after the start of a Force Majeure Event, and within a reasonable time after the end of a Force Majeure Event, any Party invoking it will submit to the other Party reasonable proof of the nature of the Force Majeure Event and of its effect upon the performance of the Party's obligations under this Agreement.

D. The Applicant will, and will ensure that its contractors will, at all times take all reasonable steps within their respective powers and consistent with good operating practices (but without incurring unreasonable additional costs) to:

(i) prevent Force Majeure Events affecting the performance of the Applicant's obligations under this Agreement;

(ii) mitigate the effect of any Force Majeure Event; and

(iii) comply with its obligations under this Agreement.

E. The Parties will consult together in relation to the above matters following the occurrence of a Force Majeure Event.

F. Should a single Force Majeure Event occur for a continuous period of more than 180 days, then the Parties shall endeavor to agree any modifications to this Agreement (including without limitation, determination of new voluntary payments) that are equitable, having due regard to the nature of the ability of the Applicant to continue to meet its financial obligations to the County.

G. For the avoidance of doubt, a Force Majeure Event shall not include (a) financial distress or the inability of either Party to make a profit or avoid a financial loss, (b) changes in market prices or conditions, or (c) a Party's financial inability to perform its obligations hereunder, except such occurrences (a)-(c) that arise from a Force Majeure Event.

14. **Third Party Beneficiaries**. This Agreement is solely for the benefit of the Parties hereto and their respective successors and permitted assigns, and no other person shall have any right, benefit, priority, or interest in, under, or because of the existence of, this Agreement.

15. **Counterparts; Electronic Signatures**. This Agreement may be executed simultaneously in any number of counterparts, each of which shall be deemed to be an original, and all of which shall constitute one and the same instrument. A signed copy of this Agreement delivered by e-mail/PDF or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

[signature page follows]

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IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by the authorized representatives whose names and titles appear below as of the Effective Date.

CARVER SOLAR I, LLC

_____
Signature

Name: _____

Title: _____

Date: _____

ISLE OF WIGHT COUNTY, VIRGINIA

By:_____
Name: ~~Rudolph Jefferson~~William M. McCarty, Sr.

Title: Chairman, Board of Supervisors

Date: _____

By:_____
Name: Randy R. Keaton
Title: County Administrator
Date:

Approved as to form:

By: _____
County Attorney

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EXHIBIT A
CONDITIONAL USE PERMIT

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EXHIBIT B

SCHEDULE OF VOLUNTARY PAYMENTS
AND
M&T STEPDOWN/SOLAR REVENUE SHARE SUPPLEMENTAL VOLUNTARY PAYMENTS

The following schedule of ~~voluntary~~ Voluntary ~~payments~~ Payments and Supplemental Voluntary Payments assumes an estimated Project nameplate capacity of 71 MWac and certain project capital expenditures. The ~~Voluntary Payments and~~ Supplementary Voluntary Payments shall be adjusted proportionally if the nameplate capacity ~~or~~ or actual capital expenditures of the constructed Project differs from such estimates. The Voluntary Payments shall not be adjusted if the nameplate capacity of the constructed Project is less than 71 MW:

(i) **Voluntary Payments**. The Voluntary Payments shall be made to the County in accordance with Article II, Section 2 of this agreement in the values as set out in the Payment Schedule below for the use by the County as the County sees fit and appropriate.

Year 1	$127,000.00
Year 2	$127,000.00
Year 3	$127,000.00
Year 4	$127,000.00
Year 5	$127,000.00
Year 6	$127,000.00
Year 7	$127,000.00
Year 8	$127,000.00
Year 9	$127,000.00
Year 10	$127,000.00
Year 11	$127,000.00
Year 12	$127,000.00
Year 13	$127,000.00
Year 14	$127,000.00
Year 15	$127,000.00
Year 16	$127,000.00
Year 17	$127,000.00
Year 18	$127,000.00
Year 19	$127,000.00
Year 20	$127,000.00

~~(i) (To be updated based on final payment values and timing)~~

ii) **Supplemental Voluntary Payments in Addition to M&T Taxes**. Supplemental Voluntary Payments set out in the Payment Schedule below listing such payments which shall provide the County on an annual basis payments equal to the amounts of the M&T

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Taxes in the years where the M&T Taxes are higher, and the amounts equal to the Solar Revenue Share authorized under Special Session No 1 in Chapters 49, 50 and 429, for the life of the Project, regardless of whether the County adopts a Solar Revenue Share Ordinance or not. The M&T Taxes shall be assessed pursuant to Article 2, Chapters 35 and 36 of Title 58.1 of the Code of Virginia and applicable County Ordinances, in effect as of the date of this Agreement, for the life of the Project.

Year	Forecasted Annual M&T taxation: $ Amount	Forecasted Annual Revenue Share: $ Amount	Greater of M&T or Revenue Share: $ Amount	Forecasted Supplemental Voluntary Payment: $ Amount
1	$120,501	$99,400	$120,501	$0
2	$120,501	$109,340	$120,501	$0
3	$120,501	$109,340	$120,501	$0
4	$120,501	$109,340	$120,501	$0
5	$120,501	$109,340	$120,501	$0
6	$120,501	$109,340	$120,501	$0
7	$120,501	$120,274	$120,501	$0
8	$120,501	$120,274	$120,501	$0
9	$120,099	$120,274	$120,274	$175
10	$118,091	$120,274	$120,274	$2,183
11	$115,949	$120,274	$120,274	$4,325
12	$113,673	$132,301	$132,301	$18,629
13	$111,263	$132,301	$132,301	$21,039
14	$108,585	$132,301	$132,301	$23,717
15	$105,907	$132,301	$132,301	$26,394
16	$103,095	$132,301	$132,301	$29,206
17	$100,016	$145,532	$145,532	$45,516
18	$96,803	$145,532	$145,532	$48,729
19	$93,321	$145,532	$145,532	$52,210
20	$89,706	$145,532	$145,532	$55,825
21	$85,824	$145,532	$145,532	$59,708
22	$81,807	$160,085	$160,085	$78,278
23	$77,388	$160,085	$160,085	$82,696
24	$72,836	$160,085	$160,085	$87,248
25	$68,016	$160,085	$160,085	$92,069
26	$62,794	$160,085	$160,085	$97,290
27	$57,305	$176,093	$176,093	$118,788
28	$51,548	$176,093	$176,093	$124,545
29	$45,389	$176,093	$176,093	$130,704
30	$38,962	$176,093	$176,093	$137,131
31	$32,000	$176,093	$176,093	$144,093

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32	$24,636	$193,702	$193,702	$169,067
33	$17,004	$193,702	$193,702	$176,698
34	$13,389	$193,702	$193,702	$180,313
35	$13,389	$193,702	$193,702	$180,313
36	$13,389	$193,702	$193,702	$180,313
37	$13,389	$213,073	$213,073	$199,684
38	$13,389	$213,073	$213,073	$199,684
39	$13,389	$213,073	$213,073	$199,684
40	$13,389	$213,073	$213,073	$199,684

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EXHIBIT C

FORM OF MEMORANDUM

Full exhibit follows

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PREPARED BY AND RETURN TO:
Carver Solar I, LLC
c/o General Counsel
1105 Navasota St.
Austin, TX 78702

Isle of Wight Tax Map ID No. _____

[NOTE TO CLERK: ISLE OF WIGHT COUNTY, VIRGINIA, A POLITICAL SUBDIVISION OF THE COMMONWEALTH OF VIRGINIA, IS A PARTY TO THIS INSTRUMENT WHICH, ACCORDINGLY, IS EXEMPT FROM RECORDATION TAX PURSUANT TO VA. CODE SEC. 58.1-811.A.3.]

MEMORANDUM OF SOLAR FACILITY SITING AGREEMENT

This Memorandum of Solar Facility Siting Agreement (this "Memorandum"), dated and effective as of _____, _____, is made by and between **Isle of Wight County, Virginia**, a political subdivision of the Commonwealth of Virginia (the "County") and **Carver Solar I, LLC** a Delaware limited liability company ("Carver"), with regard to the following:

1. Siting Agreement. The County and Carver are parties to that Solar Facility Siting Agreement, dated _____, 2023 (the "Siting Agreement"), which describes the intent of Carver to develop, install, build, and operate a solar facility ("Project") on those certain parcels of land identified as Isle of Wight County Tax Map Parcels as _____ (the "Property").

2. Authorization. The County's execution of the Siting Agreement was authorized during that certain regular meeting of the Board of Supervisors of the Isle of Wight County on _____, 2023.

3. Substantially in Accord. The Siting Agreement states, *inter alia*, that, pursuant to Virginia Code Ann. § 15.2-2316.9(C), by entering into the Siting Agreement, the County acknowledged that the Project is deemed to be substantially in accord with the Isle of Wight County Comprehensive Plan under Virginia Code Ann. § 15.2-2232.

4. Obligations. The Siting Agreement sets forth, *inter alia,* certain obligations of Carver to comply with the Conditional Use Permit approved by the County for the Project, and to make certain payments to the County.

5. Siting Agreement Controls. This Memorandum does not supersede, modify, amend or otherwise change the terms, conditions or covenants of the Siting Agreement, and the County and Carver executed and are recording this Memorandum solely for the purpose of providing constructive notice of the Siting Agreement and the County's and Carver's rights thereunder. The terms, conditions and covenants of the Siting Agreement are incorporated in this Memorandum by reference as though fully set forth herein.

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6. Counterparts. This Memorandum may be executed in counterparts, each of which shall be deemed an original and all of which when taken together shall constitute one and the same document.

WITNESS the following signature and seal:

ISLE OF WIGHT COUNTY, VIRGINIA:

By _____
Name: ~~**Rudolph Jefferson**~~**William M. McCarty, Sr.**

Title: Chairman, Board of Supervisors

COMMONWEALTH OF VIRGINIA,
COUNTY OF ISLE OF WIGHT, to-wit:

The foregoing Memorandum was acknowledged before me this _____, 20__, by ~~Rudolph Jefferson~~William R. McCarty, Sr., Chairman of the Board of Supervisors of Isle of Wight County, Virginia.

_____
Notary Public

My Commission Expires:_____

Notary Registration No. _____

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WITNESS the following signature and seal:

CARVER SOLAR I, LLC,
a Delaware limited liability company

By: _____
Name: _____
Title: _____

STATE OF TEXAS }
}
COUNTY OF TRAVIS }

Before me, a notary public in and for the jurisdiction aforesaid, this ____ day of _____, 20__ appeared _____, who acknowledged that they executed the foregoing instrument in their capacity as _____ of Carver Solar I, LLC, a Delaware limited liability company, on behalf of said company.

_____
Notary Public

My Commission Expires:_____

Notary Registration No. _____

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ISSUE:

Application (CBPA-2-23) of Michael and Katherine Gayle for a Chesapeake Bay Preservation Area (CBPA) Ordinance Exception for an After-the-Fact Approval of a Platform to Store Small Boats and Equipment with a Seating Area in the Fifty-Foot Seaward Section of the Resource Protection Area (RPA) Buffer at 1 Eagle Nest Lane.

BACKGROUND:

The property is located at 1 Eagle Nest Lane on tax map parcel 14-12-001. The property is located off of Days Point Road and is directly adjacent to Summerwind Vineyard and Winery along with a few residential homes. Directly behind the home is Tormentor Creek, a tidal tributary of the Pagan River.

When the current owners purchased the property in late 2020, there was a semi-cleared path down to an existing dock/pier in the rear yard. The owners indicated they hired a contractor to build a platform to connect to the existing dock to store and secure small boats from high tide events and allow ease of access to the boats as well as have a seating area. A cease and desist order to was issued to the property owner on October 11, 2022, due to the CBPA RPA Buffer Area violation of building a structure in the RPA without required approvals.

The house was built in 1943, before the effective date of the Chesapeake Bay Preservation Act and adoption of the local CBPA ordinance, but does not encroach into the RPA Buffer Area.

Katherine Gayle, applicant, addressed the Board during its public hearing on June 15, 2023. Since her husband, Michael Gayle, could not attend the meeting to speak to their exception request, Mrs. Gayle asked the Board to defer voting on this request until he could attend their meeting. The Board closed the public hearing and, per the applicant's request, postponed their vote on the matter until her husband was able to attend the Board meeting.

A full analysis of the consistency of the application with County plans and ordinances is included in the attached Planning Commission staff report.

BUDGETARY IMPACT:

None

RECOMMENDATION:

At its meeting on May 23, 2023, the Planning Commission did not find that the exception request met the approval criteria established in Section 5002(c) of the CBPA Ordinance and recommended denial of the request by a vote of nine in favor and zero against (9-0).

Based on the analysis of the application, staff also recommends denial of this request.

ATTACHMENTS:

Description	Type	Upload Date
Staff Report	Cover Memo	5/24/2023
Application	Proposal	5/3/2023
WQIA	Backup Material	5/3/2023
Location Map	Backup Material	5/3/2023
DEQ comments	Backup Material	5/16/2023
Ordinance	Ordinance	6/5/2023

PLANNING REPORT

APPLICATION:

Application (CBPA-2-23) of Michael and Katherine Gayle for a Chesapeake Bay Preservation Area (CBPA) Ordinance exception for an after-the-fact approval of a platform to store small boats and equipment with a seating area in the fifty-foot seaward section of the Resource Protection Area (RPA) buffer at 1 Eagle Nest Lane on Tax Map Number 14-12-001

ELECTION DISTRICT:

D3

LOCATION:

The property is located at 1 Eagle Nest Lane on tax map parcel 14-12-001. The property is located off of Days Point Road and is directly adjacent to Summerwind Vineyard and Winery along with a few residential homes. Directly behind the home is Tormentor Creek, a tidal tributary of the Pagan River.

BACKGROUND:

When the current owners purchased the property in late 2020, there was a semi-cleared path down to an existing dock/pier in the rear yard. The owners indicated they hired a contractor to build a platform to connect to the existing dock to store and secure small boats from high tide events and allow ease of access to the boats as well as have a seating area. A cease and desist order to was issued to the property owner on October 11, 2022, due to the CBPA RPA Buffer Area violation of building a structure in the RPA without required approvals.

The house was built in 1943, before the effective date of the Chesapeake Bay Preservation Act and adoption of the local CBPA ordinance. The house itself does not encroach into the RPA Buffer Area, which is not permitted by the ordinance.

DESCRIPTION:

This request is for an exception to allow a 515 square foot platform, which includes a 145 square foot connection between the platform and the existing dock. The platform, if completed, would be within zero feet of the wetlands and would connect to the existing pier. The platform outline of 370 square feet was built before the cease and desist was issued. The 145 square-foot connection between the platform and the dock has not been constructed.

The upland runoff sheet flows into the wetlands and then into Tormentor Creek, a tributary to the Pagan River, as described by the Water Quality Impact Assessment (WQIA). The purpose of the CBPA RPA Buffer Area is to provide for natural nonpoint source pollution attenuation and sediment control from upland areas adjacent to wetlands and riparian areas for Chesapeake Bay and tributary water quality management.

To compensate for the encroachment into the seaward portion of the RPA Buffer Area, the applicants have proposed compensatory landscaping consisting of one (1) canopy tree, three (3) understory trees, and three (3) small shrubs, with the plantings to be placed within the RPA Buffer Area as shown on the landscape plan.

The proposed landscaping is based on the total square footage of the platform and is in compliance with the state Riparian Buffers Modification and Mitigation Guidance Manual. The plantings proposed are native, including White Oak, Dogwood, and Wax Myrtle.

The WQIA observes the site is relatively flat and consists of Type B and D soils, indicating that water will not infiltrate into the soils and, therefore, will create off-site runoff. Soil conditions might be improved by creating planting beds using soil amendments to allow improved infiltration.

COMPREHENSIVE LAND USE PLAN:

The Comprehensive Plan categorizes this sensitive environmental area as Environmental Conservation (EC), an area dominated by environmental features that are particularly sensitive to development, including wetlands, flood prone areas, streams and stream buffers, unique habitat areas, and RPAs defined by the local CBPA Ordinance.

Appropriate land uses in this area include: wetlands, farms and forest uses, open space, and limited park facilities in appropriate locations, greenways, blueways, and trails.

ORDINANCE REVIEW:

CBPA Article 4, Section 4002, provides performance standards in RPAs and outlines permitted modifications and encroachments. Development is not permitted to extend into the 100-foot RPA Buffer Area, unless an exception is warranted due to loss of buildable area. Under Subsection 4002(b)2., permitted encroachments must be the "minimum necessary to achieve a reasonable buildable area for a principal structure and necessary utilities" and "may not extend into the seaward fifty feet of the buffer area." This exception request involves development that does extend into the seaward 50 feet, a highly sensitive area for development. There is sufficient buildable area outside of the RPA buffer to accommodate the boat and equipment storage platform.

CBPA Article 5, Section 5002 regulates exception requests and covers five criteria that must be met in order to grant an exception. These are as follows:

1) That the strict application of the ordinance would produce an undue hardship and will not confer upon the applicant any special privileges denied by this ordinance to other property owners in the CBPA areas;

Finding: Encroachments in the seaward 50 feet of the buffer area are similarly restricted on all lots where the RPA buffer exists. A review of County permit records indicates that nearby parcels where encroachments occur received exceptions and/or were required to avoid the seaward 50 feet of the buffer. Therefore, this would not constitute a unique hardship and would grant a special privilege to the applicants.

2) The exception request is not based on conditions or circumstances that are self-created or self-imposed, nor does the request arise from conditions or circumstances either permitted or non-conforming that are related to adjacent parcels;

Finding: The applicant failed to contact the County prior to construction to apply for the necessary exceptions, which resulted in the construction of a platform not permitted by the ordinance. This is a self-created hardship.

3) The exception request is the minimum necessary to afford relief;

Finding: A cleared path and dock/pier were already established on this property, and no relief is necessary to allow for buildable area on the property.

4) The exception request will be in harmony with the purpose and intent of this ordinance, not injurious to the neighborhood, or otherwise detrimental to the public welfare, and is not of substantial detriment to water quality; and

Finding: The platform and connection do not meet the purpose or intent of the CBPA ordinance, which is to safeguard water quality through protection of existing buffers and establishment of buffers where they do not exist. The platform and connection, if completed, would be within zero feet of the wetlands behind the house, which means there is little opportunity to intercept runoff before it travels into the wetlands, which is the purpose and intent of the RPA Buffer Area. This is potentially injurious to water quality and is inconsistent with the CBPA Ordinance.

5) Reasonable and appropriate conditions are imposed, which will prevent the exception request from causing a

degradation to water quality.

Finding: If this exception were approved, staff recommends: a) the applicant be required to install the mitigation landscaping in the rear yard near the wetlands; and, b) the connection between the platform and dock not be completed. The connection would make access easier to the dock, but is not necessary for the proposed use. If the connection is eliminated, it would reduce impacts by 145 square feet.

AGENCY REVIEW:

Comments from the Department of Environmental Quality (DEQ) are attached, and a summary is found below.

DEQ agrees with County staff. DEQ states the proposed use does not meet the definition of a water-dependent facility, because the small boats can be carried or transported and stored outside of the RPA. The seating area is also not water dependent. As an alternative, the small boat storage and seating could either be added to the current dock or moved outside of the RPA.

Based upon the above requirements and findings, the Board of Supervisors may choose not to grant the requested exception and require the removal of the platform frame as suggested by County staff. Such a decision would be consistent with the application of regulatory requirements. Should the Board determine that removal of the platform frame is not an appropriate solution and wishes to approve the exception request, then the alternative suggested by County staff would be to permit completion of the elevated platform only, eliminate the connection, and require mitigation within the disturbed areas according to Table A of the *Buffer Manual.*

The square footage of the platform alone is less than 400 SF, therefore, only one mitigation planting unit would be appropriate. If the entire structure is to be completed DEQ recommends requiring two landscaping units which should include; two canopy trees, four understory trees, and six shrubs.

STAFF CONCLUSIONS:

Staff finds the following strengths and weaknesses for this request:

Strengths:

1. Proposed landscaping mitigation does meet requirements of the *Riparian Buffers Guidance Manual.*

Weaknesses:

1. The applicants' request does not meet the five criteria the must be found in order to grant and exception.
2. The proposed use does not qualify as a water-dependent use and does not need to be located adjacent to the water.
3. The request is an after-the-fact approval for development without necessary permits. Development without prior approvals is not equitable for property owners who follow the required process for approval.

STAFF RECOMMENDATION:

Based on the above findings, staff recommends denial of the exception request.

ATTACHMENTS:

Description	Type	Upload Date
Application	Proposal	5/3/2023
WQIA	Backup Material	5/3/2023
Location Map	Backup Material	5/3/2023
DEQ comments	Backup Material	5/16/2023
Resolution	Resolution	5/23/2023

STOKES ENVIRONMENTAL ASSOCIATES, LTD.

26 January 2023

Isle of Wight, Central Permitting
17140 Monument Circle, Suite 100
P.O. Box 80
Isle of Wight, Virginia 23397



RE: Request for a CBPA Exception;
Small Boat Storage Platform
1 Eagle Nest Lane
Smithfield, Virginia

Hello:

With the attached information including the items requested in the Exception Application Checklist, on behalf of our Client, Michael & Katherine Gayle, we are requesting a Chesapeake Bay Preservation Ordinance Exception for the installation of a small platform to store small boats and equipment within the seaward 50-foot RPA. This application is intended to remedy a Notice of Violation for Unauthorized Construction in a Resource Protection Area at the subject site located at 1 Eagle Nest Lane in Smithfield.

Stokes Environmental Assoc., Ltd. has been authorized to act as an agent and consultant by the owners for this application.

Please do not hesitate to contact me if you have any questions or need additional information regarding this request.

With best regards.

Sincerely,
Stokes Environmental Associates, Ltd.

David A. Balsley

Attachment: Exception Application

4101 Granby Street • Suite 404 • Norfolk, Virginia 23504 • Office (757) 623-0777 • FAX (757) 623-2785

Local Roots, Global Reach

ISLE OF WIGHT
COUNTY, VIRGINIA

SUBMITTAL CHECKLIST FOR EXCEPTION APPLICATIONS

In accordance with Section 5002, *Exceptions*, of the Chesapeake Bay Preservation Area Ordinance, and in accordance with Section 6-1015, *Exceptions*, Section 6-2011, *Exceptions*, and Section 9-1013, *Exceptions*, of the Isle of Wight County Zoning Ordinance, the following information shall be submitted for an exception application. Please note that it is the applicant's responsibility to ensure that the application is in compliance with all Federal, State and County regulations.

No application for an exception shall be certified as complete unless the following information and minimum number of copies are provided, unless the number of required copies is reduced by the Zoning Administrator:

☑ 1. Ten (10) copies of the original, executed application and one (1) original executed application. Both the applicant(s) and the property owner(s) must have their signature(s) notarized on page 2 of the application.

☑ 2. The appropriate fees have been submitted with the application. Checks should be made payable to: Treasurer, Isle of Wight County.

☑ 3. Ten (10) copies of a statement of the reasons for seeking such exception.

☑ 4. Ten (10) copies of a narrative description of the property which shall include the Tax Parcel Identification Number.

☑ 5. One (1) copy of the most recent deed(s) for the property(s) associated with the application.

☑ 6. A concept plan of the site to show all existing and proposed physical improvements and such other information as is necessary to clearly indicate to the reviewing body that adequate provisions have been made for compliance with all standards for that particular use, the extent of the property to be so used on a given parcel or parcels, and information defining the requested exceptions. The plan shall be prepared by the appropriate authorized design professional licensed to practice in Virginia. No person shall prepare or certify design elements of site plans which are outside the limits of their professional expertise and license. Such document shall be drawn to scale and shall include the following information:

- A vicinity map at a scale of no less than one (1) inch equals two thousand (2,000) feet
- Title of drawing
- Date of drawing
- Existing wood line
- North arrow
- Scale bar
- Current zoning of parcel(s), including tax map number(s) and owner(s)
- Current zoning of adjacent parcel(s), including tax map number(s) and owner(s)
- Street names including route number and width(s) of the right-of-way(s)
- Ten (10) full size copies, with one (1) reduced 11-inch X 17 inch copy shall be submitted
- Please note that additional information on the site layout may be requested by the Zoning Administrator during the review process in order to more effectively review the application and prepare the staff reports for the appropriate reviewing body.

☑ 7. **<u>For CBPA Exception applications</u>, a major water quality impact assessment which meets the criteria in Section 4003 of the Chesapeake Bay Preservation Area Ordinance must be submitted at the time of application.**

☑ 8. Such other information as may be necessary to demonstrate compliance with all other applicable federal, state and County standards and regulations.

☑ 9. All real estate taxes must be paid and current at the time of submittal; otherwise, the submittal will be refused at the counter. Proof of the most recent tax payment to the County must accompany the application.

I, the undersigned, certify that this application is complete, accurate and contains all required and requested information, documents and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete and correct information available. I understand that any section not completed in its entirety may delay processing of this application.

David A. Balsley, Agent
Printed or Typed Name

Signature

26 January 2023
Date

Local Roots, Global Reach
ISLE OF WIGHT
COUNTY, VIRGINIA
DEPARTMENT OF COMMUNITY DEVELOPMENT

APPLICATION FOR EXCEPTIONS

This application should be used to petition for an exception for certain uses which, because of their unique characteristics, but which may, under the right set of circumstances and conditions be acceptable.

A. APPLICATION FOR (CHECK ALL THAT APPLY):

[x] Chesapeake Bay Preservation Area Ordinance Exception

[ ] Newport Development Service Overlay District Exception

[ ] Highway Corridor Overlay District Exception

[ ] Signage Exception

[ ] Subdivision Ordinance Waiver

[ ] Other (please list) _____

The proposal is a request to Section (s) 5002 of the Chesapeake Bay Preservation Area Ordinance, the Isle of Wight County Zoning Ordinance, or the Isle of Wight County Subdivision Ordinance.

Proposed Use or Activity: Constructing a small boat storage platform in order to be able to store small boats above the effect of the tidal reach.

B. PROJECT DESCRIPTION:

Project Name: 1 Eagle Nest Lane

Property Address (if any): 1 Eagle Nest Lane, Smithfield, VA

Comprehensive Plan Designation: _____

The exception will apply to 0.0105 acres out of 13.76 total acres

Tax Parcel Identification # 14-12-001 Number of acres to be effected: 0.0105

Proposed Utilities (check all that apply): Public Water X Private Well ____

Public Sewer ____ Private Septic ____

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 23397

Michael A. Gayle 20 JAN 2023

Applicant Signature **Date**

Owner Signature *if different* **Date**

FOR OFFICE USE ONLY:

Complete Application Received On:_____ Fees Paid: _____
Tax Query: [ ] Current [ ] Delinquent Distribution Date: _____
Posted/Date to Post: _____

AGENCIES REFERRALS:

_____Department of Conservation & Recreation
_____Economic Development
_____Emergency Services
_____General Services
_____Environmental Planner
_____Health Department
_____Transportation Manager
_____Commission of Revenue
_____Other _____

_____Inspections
_____Sheriff's Office
_____Town of Smithfield
_____Town of Windsor
_____VDOT
_____Schools
_____Budget & Finance
_____County Attorney

Verified By: MARY LYALL STOKES Date: 01/20/23

MARY LYALL STOKES
NOTARY PUBLIC
REG. #8006583
COMMONWEALTH OF VIRGINIA
MY COMMISSION EXPIRES DECEMBLR 31, 2026

1 EAGLE NEST WAY, ISLE OF WIGHT COUNTY:

STATEMENT OF REASON FOR SEEKING CBPA EXCEPTION

The property owners, Michael & Katherine Gayle, are seeking an Exception to the Chesapeake Bay Preservation Are Ordinance for construction of a small boat storage platform; the platform will be located within the seaward 50 feet of the Resource Protection Area buffer.

The reason for the exception is to provide for the storage of small boats including paddleboards, canoes, and kayaks in a location which will be secure from high tide events, yet reasonably close to the water access which is an existing dock. The platform will also house storage boxes for boating equipment such as paddles, life jackets, and other associated gear. On the site, the slopes adjacent to the existing dock are quite steep which makes safe storage of small boats difficult, and also means that locating a storage area further landward increases the difficulty of carrying the boats to and from the water access. The surface of the existing dock cannot be used for storage because the dock surface is regularly inundated by high tide events. A platform as shown on the concept plan was selected as a reasonable solution to this problem, as it provides for secure storage of small boats and the associated gear.

NARRATIVE DESCRIPTION

OF

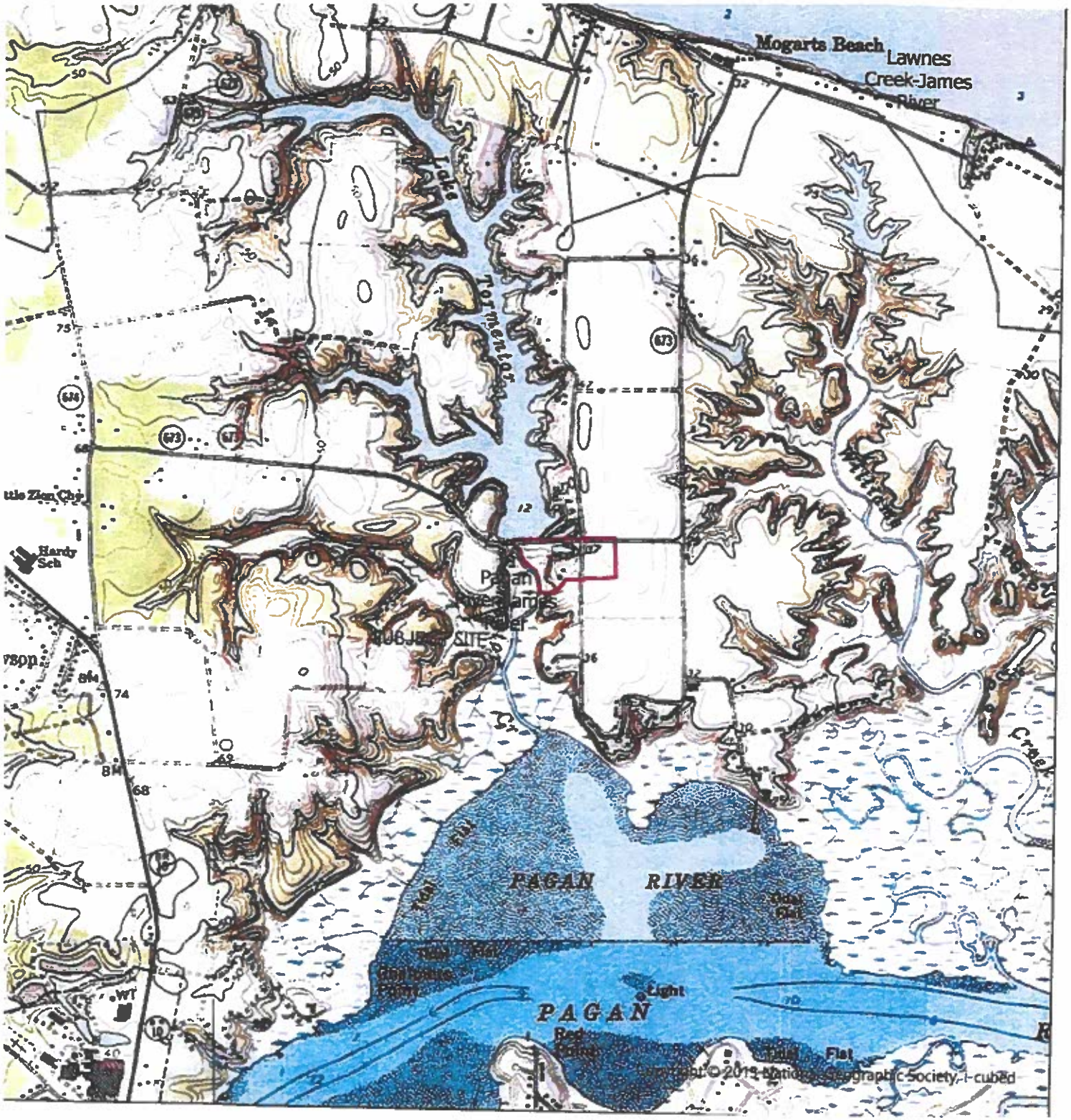
PROPERTY LOCATED AT 1 EAGLE NEST LANE
SMITHFIELD

INCLUSIVE OF PARCELS 14-12-001 & 14-12-002

The site includes two land parcels totaling 13.76 acres of land extending south of Days Point Road, west of Eagle Nest Lane, and north of an access lane dividing this property from the adjacent lot known as Parcel 14-02-027B. The property extends west to Tormentor Creek, a tributary to the Pagan River. The legal descriptions of the parcels provided in the deed are as follows:

Parcel 1 (14-12-001) includes all of that certain lot, piece, or parcel of land situate, lying and being in Hardy Magisterial District, Isle of Wight County, Virginia, and designated as Lot 1 on the certain plat of survey entitled "Plat of Lots 1, 2, 3, and 4 Being the Property of Ronald H. Pack and Christina H. Pack, Deed Book 348/532. Located in Hardy Magisterial District, Isle of With County, Virginia" made by Emin B. Holley JR., Certified Land Surveyor, Scale: 1"=200' dated February 23, 1995, which plat is recorded in the Clerk's Office of the Circuit Court for Isle of Wight County, Virginia, in Plat Cabinet 2, Slide 20, Page 9, reference being made to the plat of survey for a more complete description of the real estate herby conveyed.

Parcel 2 (14-12-002) includes all of that certain lot, piece, or parcel of land situate, lying and being in Hardy Magisterial District, Isle of Wight County, Virginia, and designated as Lot 2 on the certain plat of survey entitled "Plat of Lots 1, 2, 3, and 4 Being the Property of Ronald H. Pack and Christina H. Pack, Deed Book 348/532. Located in Hardy Magisterial District, Isle of With County, Virginia" made by Emin B. Holley JR., Certified Land Surveyor, Scale: 1"=200' dated February 23, 1995, which plat is recorded in the Clerk's Office of the Circuit Court for Isle of Wight County, Virginia, in Plat Cabinet 2, Slide 20, Page 9, reference being made to the plat of survey for a more complete description of the real estate herby conveyed.



STOKES ENVIRONMENTAL ASSOCIATES, LTD.

TOPO MAP

EAGLE NEST LANE

SMITHFIELD

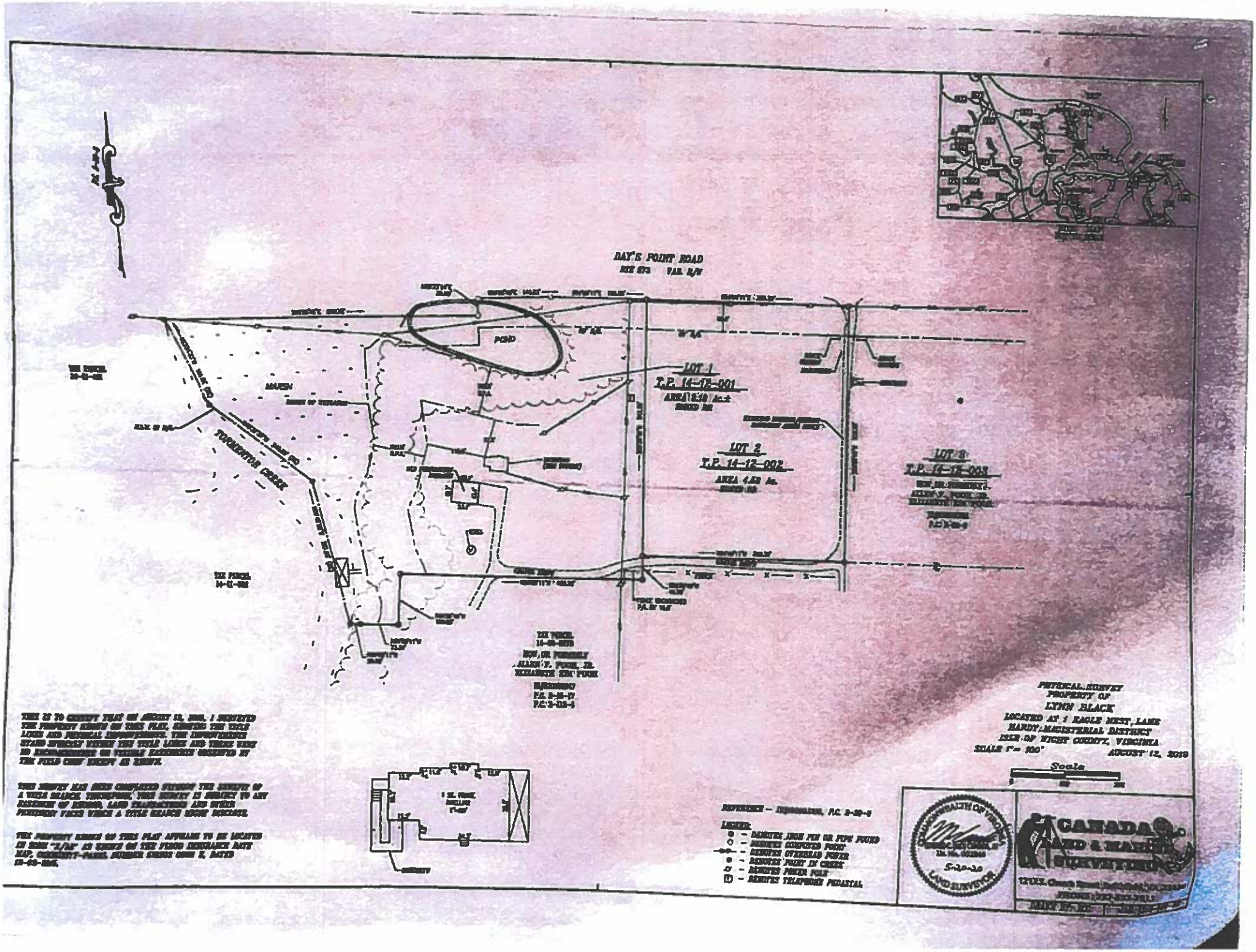
0 5001,000 2,000 Feet

Legend

- Parcel
- Uplands
- Hydrologic Unit: Watershed

HUC: PAGAN RIVER-JAMES

HUC ID: 0208020609



THIS IS TO CERTIFY THAT ON AUGUST 12, 2019, I SURVEYED THE PROPERTY SHOWN ON THIS PLAT, SHOWING THE TITLE LINES AND PHYSICAL IMPROVEMENTS. THE IMPROVEMENTS STAND SUBSTANTIALLY WITHIN THE TITLE LINES AND THERE ARE NO ENCROACHMENTS OR VISIBLE EASEMENTS OBSERVED BY THE FIELD CREW EXCEPT AS SHOWN.

THIS SURVEY HAS BEEN CONDUCTED WITHOUT THE BENEFIT OF A TITLE SEARCH. THEREFORE, THIS SURVEY IS SUBJECT TO ANY EASEMENT OF RECORD, LAND TRANSACTIONS AND OTHER PERTINENT FACTS WHICH A TITLE SEARCH MIGHT DISCLOSE.

THE PROPERTY SHOWN ON THIS PLAT APPEARS TO BE LOCATED IN ZONE "X/AE" AS SHOWN ON THE FLOOD INSURANCE RATE MAP, COMMUNITY-PANEL NUMBER 510276 0008 E, DATED 10-02-2006.



STOKES ENVIRONMENTAL ASSOCIATES, LTD.

SITE PLAN

EAGLE NEST LANE

SMITHFIELD, VA

0 90 180 360 Feet

Legend

- ImperviousSurface
- Parcel
- Wetlands
- RPA_100ft:RPA_100ft
- ExisitingWoodLine
- BoatStorage

TOTAL CONSTRUCTION AREA:
515 sq. ft.



STOKES ENVIRONMENTAL ASSOCIATES, LTD.

SITE PLAN-DETAIL

EAGLE NEST LANE

SMITHFIELD, VA

0 10 20 40 Feet

Legend

- ImperviousSurface
- Parcel
- Wetlands
- RPA_100ft:RPA_100ft
- ExisitingWoodLine
- BoatStorage

STOKES ENVIRONMENTAL ASSOCIATES, LTD.

3 May 2023

Ms. Kat Gayle
13790 Voyager Parkway
Colorado Springs, CO, 80921

RE: Major Water Quality Impact Assessment
1 Eagle Nest Lane
Smithfield, VA

Ms. Gayle:

This is to provide a Major Water Quality Impact Assessment for improvements at 1 Eagle Nest Lane, Smithfield, Virginia. The following discussion describes existing and planned impacts within the Resource Protection Area (RPA) and outlines proposed appropriate mitigation to compensate for such impacts in accordance with Isle of Wight, VA Code of Ordinances Sec.4003-Water quality impact assessment) and the Chesapeake Bay Local Assistance Department Riparian Buffer Modification & Mitigation Guidance Manual.

The partially completed planned improvement included an approximately 20x20 foot platform adjacent to an existing dock and pier.

Introduction

The subject project is at a rural single-family residence and consists of an access road to the household, an open fireplace and a boat dock on a 13.76-acre property consisting of two parcels (14.12.001 and 14.12.002). Construction activities involving land disturbance has occurred on southwestern portion of the residential land parcel adjacent to the existing dock, and consists of a partially completed foundation for the planned small boat storage platform.

The project, including limits of disturbance for the improvements, is shown in **Appendix**.

A site diagram with an aerial orthometric image showing current aerial cover of trees, emergent vegetation, grass, paved area, open water area and structures is included in **Appendix**. A GPS coordinate plot of jurisdictional wetland boundaries from a delineation completed on November 8th, 2022 by Stokes Environmental Associates, and the RPA buffer areas present onsite, are also plotted on the map.

Topography

The 2019 Mulberry Island Quadrangle, Virginia USGS Topographic Map, which includes the site and general vicinity of the site, is shown in **Appendix**. This map uses elevation contours from the

National Elevation Dataset 2015 data. Lidar digital elevation map derived from 2016 USGS CoNED Topobathymetric Model (1859-2015): Chesapeake Bay was also retrieved. These two data sources showed the project area to occur at between elevations of 0 to 50 feet above mean sea level (NAVD88). The project area residence is situated adjacent to Tormentor Creek, a tidal tributary of the Pagan River, with steep slopes on the western side close to the wetlands and waterway. The properties directly adjacent to the project site include residential homes and a small vineyard. The road serving the subject property does not receive significant drainage from the project area.

Surface Water Characteristics

According to Lidar elevation survey data and on-site observations, surface water runoff from the development area flows west from the developed area on the subject site directly into Tormentor Creek, which is adjacent to the subject property. The contributing drainage area for runoff to the proposed improvements includes a small area of grass and impervious surface from the existing developed area on the subject property. Runoff flows into the wetlands, then into the waterways. No concentrated flow features were found on the uplands of the subject property.

Floodplains

According to information found in Flood Hazard Boundary Map and Flood Insurance Rate Map 51093C0088E dated 12/2 2015 for Isle of Wight, Virginia in the **Appendix**, the southern portion of the property is within flood zone AE, indicating areas that present a 1% annual chance of flooding and a 26% chance over the life of a 30-year mortgage.

Soils and Land Cover

According to the *NRCS National Cooperative Soil Survey*, the surficial soils within the project area consists of Emporia fine sandy loam and Peawick silt loam, as shown in **Appendix**. These soils are both classified as hydrologic soil group B and D. About 18% of subject area consists of Nevarc and Remlik soils, hydrologic soil group D. For further information about these surficial soils, see the attached map.

Two hand-auger soil samples were collected by Tianshu Huang on 18 November 2022 within the close proximity of the construction site, shown as Data Point DP-3 and DP-4 on the map. The following log was recorded:

DP-3:

Depth			Color	Texture
0	-	4"	5GY 3/1	Loamy Clay
4	-	8"	5GY 4/1	Loamy Clay
8"	-	20"	10 YR 5/6	Clay

DP-4:

Depth			Color	Texture
0	-	3"	10 YR 5/2	Loam
3	-	16"	5GY 5/2	Loam
16"	-	20"	5GY 6/2	Loam

According to National Cooperative Soil Survey, both the Peawick silt loam and Nevarc and Remlik soils found near the construction site has a rate of infiltration less than 0.02 in/hr. K_{sat} of the soil samples collected are less than 0.02 in/hr, indicating the soils on the site are very poorly drained, have very slow runoff and very slow permeability.

Geology and Groundwater Hydrogeology

The subject site is situated within Map Unit Qn in the Atlantic Coastal Plain Physiographic Province of Virginia, which consists of an eastward-thickening wedge of stratified, unconsolidated and semi-consolidated alluvial and marine deposits above a crystalline basement surface. These sediments are composed primarily of gravels, sands, silts, and clays. At the project site, depth to the crystalline basement rocks is greater than 2,500 feet. A geologic map of the site is included in **Appendix**.

The groundwater flow system in the Atlantic Coastal Plain consists of an unconfined, water table aquifer and an underlying sequence of semi-confined to confined aquifers and intervening confining units. The aquifers are composed of permeable sands and gravels through which water readily flows. The confining layers are composed of clayey materials which retard water flow. In the Atlantic Coastal Plain, the confining layers are often "leaky" allowing exchange of water between aquifers.

The regional geologic map shows the site located on Quaternary-age deposits of the Norfolk Formation. The Norfolk Formation consists of fluvial and estuarine clayey sand, organic silt, peat and clay. These materials form the surficial deposits of a broad swale and extensive lowlands bounded on the landward side by river-, bay- and ocean-facing scarps. The Norfolk Member forms a part of the water table, or Columbia aquifer, beneath the site.

Site-specific hydrologic reports and maps were not found to be readily available for the subject site during this investigation. Information regarding the groundwater characteristics in the vicinity of the site was obtained from published information from the Virginia State Water Control Board and the United States Geological Survey. The following discussion is abstracted from these publications.

One unconfined and confined aquifer is present beneath the site in the interval from the ground surface to 100 feet below ground surface (BGS). The uppermost aquifer is the unconfined water table, or Columbia, aquifer. According to hydrogeologic cross sections, the water table aquifer generally occurs in the depth interval from immediately below the surface to approximately 45 feet BGS. Saturated thickness of the Columbia aquifer in this area is approximately 120-150 feet. Precipitation is the principal source of recharge for this aquifer, and averages about 44 inches per

year. Approximately 12 to 20 inches per year of the total precipitation (27 - 45 percent) is estimated to infiltrate the ground surface and reach the Columbia aquifer; the remainder of the annual precipitation is lost due to surface runoff, evaporation, etc. The following median values have been reported for hydraulic characteristics of the Columbia aquifer: well yield of 30 gallons per minute, specific capacity of 6.1 gallons per minute per foot of well drawdown, median transmissivity of 1070 square feet per day, and a horizontal hydraulic conductivity of 28.7 feet per day.

The Yorktown-Eastover confined aquifer system underlies the Columbia aquifer. The Yorktown-Eastover aquifer system is generally separated from the overlying Columbia aquifer by beds of silt, clay and sandy clay which function as an aquitard between the two aquifers. Although the Yorktown Formation is 300 to 400 feet thick, the major water-bearing zones comprising the Yorktown-Eastover aquifer system are restricted to the upper portion of the Yorktown Formation. The remainder of the Yorktown Formation serves as aquitards between the aquifers. The top of the Yorktown-Eastover aquifer system in this area occurs at an approximate depth of 50 feet BGS. Recharge to the Yorktown-Eastover aquifer system is primarily through downward leakage of water from the overlying Columbia aquifer. The following median values have been reported for hydraulic characteristics of the Yorktown aquifer: well yield of 46 gallons per minute, specific capacity of 8.1 gallons per minute per foot of well drawdown, a transmissivity of 2460 square feet per day, and a horizontal hydraulic conductivity of 23.1 feet per day.

The flow of shallow groundwater generally follows the regional topography. Since the topography at the subject site slopes toward the east, recharge of the water table aquifer by infiltration of precipitation should result in groundwater flow in the vicinity of the site that is generally east. However, published reports of groundwater flow directions for the site and adjacent areas were not available, and further research and/or subsurface testing would be necessary to confirm the flow direction and to identify the location and characteristics of deeper groundwater aquifers.

Wetlands and Chesapeake Bay Preservation Areas

The National Wetlands Inventory Map from the US Fish and Wildlife Service Web GIS Publication, updated November 5, 2020, shows designated E2EM1P and PFO4R wetlands downstream of the project area. (see the **Appendix**)

The subject site was evaluated for the presence of jurisdictional wetlands by Tianshu Huang in accordance with the on-site determination methods specified in the U.S. Army Corps of Engineers, 2010, *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Atlantic and Gulf Coastal Plain Region* (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-20. Vicksburg, MS: U.S. Army Engineer Research and Development Center. Wetlands onsite include tidal spartina emergent wetlands and adjacent forested wetlands. A GPS coordinate plot of jurisdictional wetland boundaries onsite is shown on the enclosed site diagram.

Chesapeake Bay Preservation Areas are present within the project area, and include a 100 foot Resource Protection Area (RPA) buffer adjacent to hydraulically connected wetlands located a few feet downslope of the project area. These are regulated by the Isle of Wight Chesapeake Bay

Preservation Ordinance. Land cover existing within the RPA prior to disturbance includes forest, grass lawn, and impervious improvements associated with the residential home.

Impacts

Impacts include increased impervious surface and increased volume of runoff, mostly within the RPA buffer. The footprint of the proposed new impervious surfaces and associated underlying foundations as proposed would not significantly impact topographic grade, or shallow subgrade soil as the platform is elevated on 4'x4' piles. Impacts to hydrology within the areas covered by wooden platform include decreased evapotranspiration, increased runoff, decreased recharge, and depressed water table, dryer soil, increased availability of water storage in soil profile, and increased rate of absorption of stormwater in the soil areas under the footprints of the proposed modified impervious surfacing.

Impervious surface consisting of the elevated wooden platform shadows the turf area in the drainage area leading to the wetland that drains into Tormentor Creek on the property. Although flow volumes will be increased, peak rate of flow will not be increased. No substantial effect on the water table in surrounding areas is expected; effects are limited in lateral effect and recharge to surrounding areas is likely dominated by localized balance of infiltration and evapotranspiration, and by the nearby river bank. Runoff is to be treated with onsite best management practices to counter adverse effects of runoff volume on surrounding areas, including peak rate of flow of the runoff, suspended solids, nutrient pollutants, and chemical contaminants potentially present within the flows.

No wetland loss is expected due to the construction.

Other Hydrological Elements

Wetland impacts will be limited to 4" X 4" wooden posts to support the connecting walkway connecting the boat storage platform and the existing walkway to the dock. Wetland and stream circulation patterns will not be affected.

Drainage divides will be maintained in the topography and impervious surface added in the drainage area of the creek will drain to the same creek after treatment with the BMP to maintain peak flow rate and water quality at a suitable condition. There are no other disruptions in the supply of water to wetlands, streams, lakes, rivers or other water bodies;

The wooden boat storage platform will be completed within the seaward 50 feet of the 100-foot RPA zone. The site activities do not involve dredging, filling or effects on shellfish beds, submerged aquatic vegetation, or fish spawning areas. The only effects on the surrounding surfaces will be the placement of 6' wide wooden decking installed with gaps between to allow for water drainage.

Pre- and post-development pollutant load estimates in total runoff from the project area was calculated by the Virginia Runoff-Reduction Method based on the area of turf and impervious

surface across the Hydrologic Soil Group B soils found throughout all of the project area, with the following results:

Pre-development Total Phosphorus (TP) Load	1.35	lb/yr
Final Post-development TP Load	1.35	lb/yr
TP Load Reduction Required	0.00	lb/yr
TP Load Reduction Achieved	0.00	lb/yr
TP Load Remaining	0.00	lb/yr

Impervious surfaces to be built or replaced include the wooden boat storage platform. Approximately 515 square feet of land will be disturbed for constructing the improvements to the home. Changes to types of surfaces in the project area include the following:

PRIOR	square feet	acres	PLANNED	square feet	acres
		0.20	Impervious Cover		0.21
Impervious Cover	8712			9227	
		1.64			1.63
Managed Turf	71438		Managed Turf	71438	
Open Area	319730	11.92	Open Area	319330	11.92
Total	399880	13.76	Total	399880	13.76

Net increase in impervious surface: 0.012 acre

Duration and phasing schedule of construction project remains to be determined, as well as requisite permits from all applicable agencies necessary to develop project which may include but are not limited to:

Mechanical Permit
Plans Inspection
Building Permit
Final Building Inspection
Electrical Inspection
Electrical Permit

Erosion and Sediment Control

Standard erosion and sediment control practices as defined in the Virginia Erosion and Sediment Control Handbook, to be used at the site, shall include, but are not limited to: Minimal disturbance to nearby surfaces by utilizing the 4'x4' support piles for elevated platform; Gaps between wooden

decking surface boards to allow for drainage. Work shall be scheduled such that disturbed soil is not left unstabilized during a period of predicted rain, to the extent possible. An Erosion and Sediment Control Plan will be created only if required by any permitting authority.

Stormwater Management

The effects on runoff from the property due to additional impervious surface created will be countered and offset treated with an approved Best Management Practice (BMP), in order to achieve the water quantity and quality requirements listed in the Virginia Stormwater Management Program and calculated by the Virginia Runoff -Reduction Method.

According to calculations, the increase in TN and TP load will be minimal thus no need for extra stormwater management.

Tree Replacement

Approximately 500 sqf of land within RPA zone will be replaced with impervious surface. This impact will be mitigated with one of the following options, at the owner's discretion, in an alternate location of the owner's yard in the RPA.

- One 5" dbh tree of species chosen from attached list
- Three 6' understory trees chosen from attached list
- Three small shrubs or woody groundcover at 15"-18" height

For list of acceptable tree species, see Appendix A of the Riparian Buffer Modification and Mitigation Guidance Manual, attached.

We recommend the following species for the Canopy Tree:
Red maple, white oak, chestnut oak;
Understory trees: Dogwood, American holly;
Shrubs: Wax myrtles, oak-leaf hydrangea, American beatyberry.

Conclusion

Based on the City's Chesapeake Bay Preservation ordinance, this report satisfies the City's review and evaluation requirements in Appendix B-13 of the Isle of Wight, Virginia Unified Development Ordinance for a Major WQIA. Upon the completed review of a WQIA application, the City's Zoning Administrator will determine if the 1 Eagle Nest Lane development is consistent with the purpose and intent of the Isle of Wight Unified Development Ordinance based upon the following criteria:

- There will be no loss of wetlands or woody vegetation within the 100 ft RPA as a result of this project, and indirect effects on these areas are minimal.

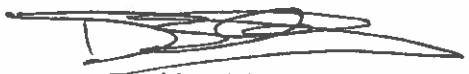
- The development will not result in significant disruption of the hydrology of the site;
- The development will not result in significant degradation to aquatic life;
- Proposed erosion and sediment control concepts are adequate to achieve the reductions in runoff and prevent off site sedimentation;
- Proposed stormwater-management measures are adequate to control the stormwater runoff to achieve the required performance standard for pollutant control;
- Time that it is reasonably necessary for soils to be left in disturbed condition is minimal for most of the project area, which allows good erosion and sediment control to be achieved for the scale of the project area;
- The development, as proposed, is consistent with the purpose and intent of Suffolk, Virginia Unified Development Ordinance;
- The cumulative impact of the proposed development, when considered in relation to other development in the vicinity, both existing and proposed, will not result in a significant degradation of water quality.

In summary, the 1 Eagle Nest Lane project plans to add impervious surface within existing grass in the 100 ft RPA, as needed for the addition of some improvements including a small boat storage platform adjacent to an existing dock at a single-family residential property. A mitigation Practice is proposed, which satisfies the Virginia Stormwater Management Program requirements.

Please do not hesitate to call me if you have any questions or need further information.

With best regards.

Sincerely,



David Balsley

Appendix: Runoff Reduction Complinace Sheet;
Plant List;
USGS Topo Map;
Tax map;
NWI map;
Soil map;
FEMA flood map;
Wetland delineation map;
Site plan;
Site plan – Detail;
Landscaping plan.



STOKES ENVIRONMENTAL ASSOCIATES, LTD.

SITE PLAN

EAGLE NEST LANE

SMITHFIELD, VA

0 90 180 360 Feet

Legend

- ImperviousSurface
- Parcel
- Wetlands
- RPA_100ft:RPA_100ft
- ExisitingWoodLine
- BoatStorage

TOTAL CONSTRUCTION AREA:
515 sq. ft.



STOKES ENVIRONMENTAL ASSOCIATES, LTD.

SITE PLAN-DETAIL

EAGLE NEST LANE

SMITHFIELD, VA

0 10 20 40 Feet

Legend

- ImperviousSurface
- Parcel
- Wetlands
- RPA_100ft:RPA_100ft
- ExisitingWoodLine
- BoatStorage

GAYLE CBPA EXCEPTION (CBPA-2-23)
LOCATION MAP



Legend

Parcels

RoadCenterLines

natural heritage

N

W E

S

Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Travis A. Voyles
Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director
(804) 698-4020

May 5, 2023

Ms. Shaunee Beussink, Environmental Planner
Isle of Wight County
17140 Monument Circle, Suite 101
Isle of Wight, VA 23397

RE: Chesapeake Bay Exception Request, 1 Eagle Nest Lane, Smithfield, VA.

Dear Ms. Beussink:

Per the County's request, the Virginia Department of Environmental Quality (DEQ) appreciates the opportunity to review the above referenced project for compliance with the *Chesapeake Bay Preservation Act* (Bay Act) and the *Chesapeake Bay Preservation Area Designation and Management Regulations* (Regulations). Isle of Wight County has adopted a Chesapeake Bay Preservation Ordinance that incorporates the requirements of the Bay Act and Regulations. The following comments are from the perspective of the Regulations regarding the appropriateness of the landowner's after-the-fact exception request, including the proposed mitigation plan for encroachment into the seaward 50-feet of the Resource Protection Area (RPA).

Background

County records indicate the subject property is 13.76 acres consisting of two parcels with the following improvements: an access road, single family home, concrete pad, and a large boat dock. Of the existing improvements, only the boat dock was located within the RPA. Without County approval, the applicant began construction of an elevated small boat storage platform and seating area within the RPA adjacent to the existing dock. The construction came to the County's attention when only the posts and frame of the 370 square foot (SF) platform had been built. The County ordered construction to be halted. In addition to the platform, the project included construction of a 145 SF connection between the platform and the existing dock, construction for which had not begun. The County informed DEQ that a total of 515 SF of impervious surface was proposed for the project, including the connection. Land disturbance was proposed to be limited to the area necessary to place the necessary 4' x 4' wooden posts that would elevate the proposed platform and connection, estimated to be less than 400 SF. According to the applicant's Major Water

Quality Impact Assessment (WQIA) the placement of the wooden posts for the connection would impact wetlands at the shoreline.

County staff informed DEQ that they recommended removal of the partially completed platform; however, the applicant requested an exception for an encroachment into the seaward 50' of the RPA to complete the project. County staff has stated their recommendation that if the exception is granted, it be conditioned with approval of completion of the small boat platform only, and not include construction of the connection to the existing dock. This change would reduce the area of impervious surface within the RPA by 145 SF, eliminate the proposed wetland impacts, and reduce the area of land disturbance.

Buffer Area Requirements

According to 9 VAC 25-830-140.3 of the Regulations, the RPA buffer is intended to be a 100-foot-wide area of vegetation that is effective in retarding runoff, preventing erosion, and filtering nonpoint source pollution from runoff in order to minimize the adverse effects of human activities on the other components of the RPA, state waters, and aquatic life. Notwithstanding permitted uses, encroachments and vegetation clearing as set forth in the Regulations, the 100-foot-wide buffer area is not reduced in width and *shall be retained if present and established where it does not exist*. Where such buffer must be established, the planting of trees shall be incorporated as appropriate to site conditions and in such a manner to maximize the buffer function, deemed to be a 75% reduction of sediments and a 40% reduction of nutrients.

The County estimates that a total of 515 SF of impervious surfaces will be added to the RPA and the WQIA states that "this impact will be mitigated [sic] the owner's yard in the RPA. The approximate location of the planting is shown in the attached landscaping plan._

- One 5" dbh tree of species chosen from attached list
- Three 6' understory trees chosen from attached list
- Three shrubs or woody groundcover at 15"-18" height."

However, the proposed mitigation would not be adequate mitigation for the 515 SF platform and connector, for which Table A on page 94 of the *Riparian Buffer Modification and Mitigation Guidance Manual (Buffer Manual)* recommends the following mitigation planting standard:

- Two canopy trees at 1.5" to 2" calipers
- Four understory trees at 3/4:" to 1/5" calipers, and
- Six shrubs or woody groundcover at 15"-18" height."

All mitigation plantings should be placed within the area of the RPA that has already been cleared of vegetation in order to meet the buffer area requirements.

Development in the Resource Protection Area

Section 9 VAC 25-830-140.1 of the Regulations describes the types of land development that may be permitted in the RPA, subject to local government approval. These include: (i) water dependent uses; (ii) redevelopment; (iii) development or redevelopment within designated Intensely Developed Areas; (iv) new uses established pursuant to lots or parcels recorded prior to October 1, 1989; (v) private roads or driveways; or (vi) flood control or stormwater management

facilities. The approval of each permitted use requires conditions and is subject to a locally administered approval process.

Pursuant to 9VAC25-830-40, “water-dependent facility" means a development of land that cannot exist outside of the Resource Protection Area and must be located on the shoreline by reason of the intrinsic nature of its operation. These facilities include (i) ports; (ii) the intake and outfall structures of power plants, water treatment plants, sewage treatment plants, and storm sewers; (iii) marinas and other boat docking structures; (iv) beaches and other public water-oriented recreation areas; and (v) fisheries or other marine resources facilities.

The proposed use does not meet the definition of a water-dependent facility because small boats can be carried or transported and stored outside of the RPA. The seating area is also not water dependent. As an alternative, the small boat storage and seating could either be added to the current dock or moved outside of the RPA.

After-the-Fact Exception Request

As previously stated, County approval for the project was not sought prior to construction. In addition, the unauthorized impervious surfaces encroached upon the seaward 50-feet of the RPA buffer, which has always been discouraged. In order to complete the project, the applicant has requested approval of an “after-the-fact” exception from the Board of Zoning Appeals.

DEQ cannot speculate how the County Board of Zoning Appeals would have ruled on this exception had they been given the opportunity to review it prior to commencement of construction. However, the project is subject to the General Performance Criteria 9 VAC 25-830-130) and the Development Criteria for Resource Protection Areas (9 VAC 25-830-140). In addition, the project is subject to review of the findings listed in 9 VAC 25-150 C 1 as outlined below:

a. The requested exception to the criteria is the minimum necessary to afford relief.
b. Granting the exception will not confer upon the applicant any special privileges that are denied by this part to other property owners who are subject to its provisions and who are similarly situated.
c. The exception is in harmony with the purpose and intent of this part and is not of substantial detriment to water quality.
d. The exception request is not based upon conditions or circumstances that are self-created or self-imposed.
e. Reasonable and appropriate conditions are imposed, as warranted, that will prevent the allowed activity from causing a degradation of water quality.
f. Other findings, as appropriate and required by the local government, are met.

Based upon the above requirements and findings, the Board of Zoning Appeals may choose not to grant the requested exception and require the removal of the platform frame as suggested by County staff. Such a decision would be consistent with the application of regulatory requirements. Should the Board determine that removal of the platform frame is not an appropriate solution and wishes to approve the exception request, then the alternative suggested by County staff would be to permit completion of the elevated platform only, eliminate the connection, and require

mitigation within the disturbed areas according to Table A of the *Buffer Manual.* The square footage of the platform alone is less than 400 SF, therefore, only one mitigation planting unit would be appropriate.

The responsibility for reviewing and approving projects is the purview and requirement of the locality consistent with the Bay Act and Regulations. DEQ does not approve individual projects; however, thank you again for the opportunity to comment on this project. If you have any additional questions or concerns, please do not hesitate to contact me.

Kind regards,

Lisa C Dewey

Lisa Dewey
Bay Act Liaison
Office of Watersheds and Local Government Assistance Programs
(804) 659-1331
lisa.dewey@deq.virginia.gov

cc: Justin Williams, DEQ Director, Office of Watersheds and Local Government Assistance Programs

ORDINANCE NUMBER _____

AN ORDINANCE TO GRANT A CHESAPEAKE BAY PRESERVATION AREA ORDINANCE EXCEPTION TO ALLOW AFTER-THE-FACT APPROVAL OF A PLATFORM TO STORE SMALL BOATS AND EQUIPMENT WITH A SEATING AREA IN THE FIFTY-FOOT SEAWARD RESOURCE PRESERVATION AREA BUFFER ON THE PROPERTY WITH TAX PARCEL NUMBER 14-12-001

WHEREAS, Michael and Katherine Gayle, owners and applicants, have requested an exception to the Chesapeake Bay Preservation Area (CBPA) ordinance requirements for after-the-fact approval of a platform to store small boats and equipment with a seating area in the fifty-foot seaward Resource Protection Area buffer in accordance with the County CBPA ordinance on a certain tract of land with tax parcel number 14-12-001 which land is depicted on Exhibit "A"; and,

WHEREAS, the procedural requirements of Appendix B-1, CBPA Ordinance, of the Code of Isle of Wight County, Virginia, 2005 (as amended), have been followed; and,

WHEREAS, in acting upon this request, the Planning Commission and Board of Supervisors have considered the matters enunciated in Section 62.1-44.15:72 of the Code of Virginia (1950), as amended, and Article 5, Section 5002 of the Isle of Wight County CBPA Ordinance with respect to the purposes stated in Code of Virginia (1950), as amended, Section 15.2-2200 and 15.2 2283;

WHEREAS, the Planning Commission has made a recommendation of denial as stated in Exhibit "B"; and

NOW, THEREFORE, BE IT ORDAINED by the Isle of Wight County Board of Supervisors of Isle of Wight County, Virginia, that:

Section 1. Exhibits.

Exhibit "A", "Property Map," Exhibit "B", "Planning Commission Recommendation of Denial", and Exhibit "C," "Conditions of Approval," which are attached hereto, are hereby incorporated as part of this ordinance.

Section 2. Findings.

The Board of Supervisors finds that the proposal for a CBPA exception (CBPA-2-23), as submitted or modified with conditions herein, the expressed purpose of which is to permit an after-the-fact installation of a platform to store small boats and equipment with a seating area and to construct a connection to the existing dock in the fifty-foot seaward Resource Protection Area buffer in accordance with the conditions of approval as stated in Exhibit C, and such approval is in conformity with the standards of the Isle of Wight County CBPA Ordinance, and

that the strict application of the Ordinance will produce an undue hardship and will not confer upon the applicants any special privileges denied by this Ordinance to other property owners in the CBPA areas; that the exception request is not based on conditions or circumstances that are self-created or self-imposed, nor does the request arise from conditions or circumstances either permitted or non-conforming that are related to adjacent parcels; that the exception request is the minimum necessary to afford relief; that the exception request will be in harmony with the purpose and intent of this ordinance, not injurious to the neighborhood or otherwise detrimental to the public welfare, and is not of substantial detriment to water quality; and that reasonable and appropriate conditions are imposed which will prevent the exception from causing a degradation of water quality.

These findings are based upon the consideration for the existing use and character of the property, the Comprehensive Plan, the suitability of the property of various uses, the trends of growth or change, the current and future requirements of the community as to land for various purposes as determined by population and economic studies and other studies, the transportation requirements of the community, the requirements of airports, housing, schools, parks, playgrounds, recreation areas and other public services, the conservation of natural resources, the preservation floodplains, the preservation of agricultural and forestal land, the conservation of properties and their values, and the encouragement of the most appropriate use of land throughout the County.

These findings are based upon a determination that the most reasonable and limited way of avoiding the adverse impacts of a CBPA exception is by the imposition of the conditions provided herein.

Section 3. Permit Granted.

The CBPA exception for the property be, and is hereby, approved for the property, subject to the conditions listed in Exhibit C and the general conditions set forth in Section 4 hereof. The exception specifically permits a platform to store small boats and equipment with a seating area and a connection to the existing dock in the fifty-foot seaward Resource Protection Area buffer in compliance with the County CBPA ordinance.

Section 4. Severability.

It is the intention of the Board of Supervisors that the provisions, sections, paragraphs, sentences, clauses, and phrases of this ordinance are severable; and if any phrase, clause, sentence, paragraph, section, and provision of this ordinance hereby adopted shall be declared unconstitutional or otherwise invalid by the valid judgement or decree of a court of competent jurisdiction, such unconstitutionality or invalidity shall not affect any of the remaining phrase, clauses, sentences, paragraphs, sections, and provisions of this ordinance, to the extent that they can be enforced notwithstanding such determination

Section 5. Effective Date

This ordinance shall be effective upon passage and shall not be published or codified.

DATE:_____

READ AND PASSED: _____
Chairman, Board of Supervisors

TESTE: _____
Clerk

Approved as to Form:

_____
Robert H. Jones, Jr., County Attorney

EXHIBIT A

GAYLE CBPA EXCEPTION (CBPA-2-23)
LOCATION MAP



Legend

Parcels

RoadCenterLines

natural heritage

N

W E

S

EXHIBIT B

RESOLUTION NO. PC-23-9

ISLE OF WIGHT COUNTY PLANNING COMMISSION
A RESOLUTION TO PRESENT A REPORT AND RECOMMENDATION TO THE BOARD OF SUPERVISORS RELATING TO A CHESAPEAKE BAY PRESERVATION AREA ORDINANCE EXCEPTION AFTER-THE-FACT REQUEST FOR A PLATFORM AND CONNECTOR IN THE FIFTY-FOOT SEAWARD RESOURCE PROTECTION AREA BUFFER

WHEREAS, Michael and Katherine Gayle, applicants and property owners, have requested a Chesapeake Bay Preservation Area Exception (CBPA-2-23), after the fact, for a certain tract of land with tax parcel number 14-12-001 situated in Isle of Wight County, Virginia; and

WHEREAS, the procedural requirements for the consideration of this request for a platform in the fifty-foot seaward Resource Protection Area buffer have been met in accordance with Section 5002 of the County Chesapeake Bay Preservation Area (CBPA) Ordinance;

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of Isle of Wight County, that:

Section 1. Findings.

___a. The Planning Commission finds that the proposal for the exception, as submitted or modified herein, meets the following criteria per Section 5002 (c) of the CBPA Ordinance:

1. That the strict application of the ordinance will produce an undue hardship and will not confer upon the applicants any special privileges denied by this ordinance to other property owners in the CBPA areas;

2. That the exception request is not based on conditions or circumstances that are self-created or self-imposed, nor does the request arise from conditions or circumstances either permitted or non-conforming that are related to adjacent parcels;

3. That the exception request is the minimum necessary to afford relief;

4. That the exception request will be in harmony with the purpose and intent of this ordinance, not injurious to the neighborhood or otherwise detrimental to the public welfare, and is not of substantial detriment to water quality; and

5. That reasonable and appropriate conditions are imposed which will prevent the exception request from causing a degradation of water quality.

Yb. The Planning Commission does not find that the proposal for an exception meets the criteria established in Section 5002 (c) of the CBPA Ordinance.

Section 2. Recommendation to Board of Supervisors.

The Planning Commission recommends to the Board of Supervisors that the request, CBPA-2-23, be:

___ a. Granted as submitted, and that the Board of Supervisors adopt the proposed Ordinance without modification.

X b. Denied, and that Board of Supervisors not adopt the proposed Ordinance.

___c. Granted with the modifications set forth on the attached listing of specific recommendations, and that the Board of Supervisors adopt the proposed Ordinance with such modifications.

DATE: 5-23-23

READ AND PASSED: _____
Chairman, Isle of Wight County Planning Commission

TESTE: _____
Secretary, Isle of Wight County Planning Commission

Approved as to Form:

_____
Robert W. Jones, Jr., County Attorney

ISSUE:

Application of Bur Investment LLC, applicant and owner, for an Exception to Section 6-2010.A.1,2 and 3 of the Newport Development Service Overlay (NDSO) District Regulations in the Zoning Ordinance for the Property Located on Commerce Lane with Tax Map Number 42-06-006 for an Exception to the NDSO Design Standards for Building Façades, Exterior Walls, Windows and Building Materials

BACKGROUND:

The property is a 2.1 acre parcel located on Commerce Lane, inside the Isle of Wight County Industrial Park on property with tax map parcel number 42-06-006. The property is bounded to the south by IWIP Road, to the north and east by parcels included in the industrial park also in the Conditional-Limited Industrial zoning district, and to the west by Commerce Lane.

The property is currently vacant. The site is a part of the original Isle of Wight Industrial Park which received zoning approval in 1988. A site plan was originally submitted in 2019 as a response to a notice of violation for shipping containers being stored on site not connected to a principal use.

The proposal is to add 4,500 square feet of retail space, 7,800 square feet of warehouse space, and 2,700 square feet of office space. The applicant has proposed to move his electrical business into 3,000 square feet of the building and lease space for other businesses in the remaining square footage.

As of January 2020, the parcel was added to the NDSO. During the most recent revision of the Comprehensive Plan the entire industrial park was included in the expansion of the NDSO.

The applicant submitted an application for an exception to the NDSO standards in June of 2023.

The applicant would like to construct a metal building. The applicant has stated allowing him to construct the building as seen in the attached elevations will not only be in line with the rest of the park but also be the most cost-effective way for him to construct and lease his building. As a result, the applicant requests an exception to the architectural and design guidelines of the NDSO District. The request is to the following ordinance requirements:

- 6-2010.A.1.a - states facades under two hundred (200) horizontal feet in length shall incorporate vertical elements and materials changes in the architectural design, breaking the visual monotony of the continuous façade.
- 6-2010.A.2.a - requires facades that face vehicle moving areas, excluding loading areas, shall contain windows between the height of three (3) feet and eight (8) feet for no less than fifty percent (50%) of the horizontal length of the building facade facing the public vehicle moving area. Windows shall be recessed and should include visually prominent sills, shutters, or other such forms of framing.
- 6-2010.A.3.a - prohibits the use of either concrete block, flat or corrugated metal, or vinyl siding walls for new development or expansion of existing development within the NDSO District.

Based on an analysis of the project, staff identified the following strengths and weaknesses for the proposed uses:

Strengths:

1. The building design will be similar to existing buildings within the industrial park.
2. The proposed use of the property would increase employment and revenues in the County.

Weaknesses:

1. The building will not meet the NDSO requirements.

A full analysis can be found in the attached staff report.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

At its meeting on July 25, 2023, the Planning Commission recommended approval of the exception with a vote of nine in favor of the motion and zero voting against. Staff also recommends approval of this request.

ATTACHMENTS:

Description	Type	Upload Date
Application	Backup Material	7/18/2023
Elevations	Backup Material	7/18/2023
Proffers	Backup Material	7/18/2023
Location Map	Backup Material	7/18/2023
Site Images	Backup Material	7/18/2023
Proposed Window and Door Percentages	Backup Material	7/19/2023
PC Staff Report	Backup Material	8/4/2023

Local Roots, Global Reach

ISLE OF WIGHT COUNTY, VIRGINIA

DEPARTMENT OF COMMUNITY DEVELOPMENT

APPLICATION FOR EXCEPTIONS

This application should be used to petition for an exception for certain uses which, because of their unique characteristics, but which may, under the right set of circumstances and conditions be acceptable.

A. APPLICATION FOR (CHECK ALL THAT APPLY):

[ ] Chesapeake Bay Preservation Area Ordinance Exception

[√] Newport Development Service Overlay District Exception

[ ] Highway Corridor Overlay District Exception

[ ] Signage Exception

[ ] Subdivision Ordinance Waiver

[ ] Other (please list) _____

The proposal is a request to Section (s) 6-2010 of the Chesapeake Bay Preservation Area Ordinance, the Isle of Wight County Zoning Ordinance, or the Isle of Wight County Subdivision Ordinance. A1, 2 and 3

Proposed Use or Activity: Metal Building - Flex Space

B. APPLICATION INFORMATION:

Applicants Name: Bur Investment, LLC (Eric Stiles)

Address: 104 Stallion Ct Smithfield VA 23430

Email: PESTNC@Sprynet.com Phone: 757-435-4641

Property Owners Name: Bur Investment, LLC

Address: 104 Stallion Ct Smithfield, VA 23430

C. **PROJECT DESCRIPTION:**

Project Name: BW IWIP

Property Address (if any): 42-06-006

Comprehensive Plan Designation: _____

The exception will apply to 2.13 acres out of 2.13 total acres

Tax Parcel Identification # 42-06-006 Number of acres to be effected: 2.13

Proposed Utilities (check all that apply): Public Water__Private Well ✓

Public Sewer_____Private Septic ✓

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P.O. Box 80, Isle of Wight, Virginia 23397

_____ 5/15/23

Applicant Signature **Date**

_____

Owner Signature *if different* **Date**

FOR OFFICE USE ONLY:

Complete Application Received On:_____ Fees Paid: _____

Tax Query: [ ] Current [ ] Delinquent Distribution Date: _____

Posted/Date to Post: _____

AGENCIES REFERRALS:

_____Department of Conservation & Recreation
_____Economic Development
_____Emergency Services
_____General Services
_____Environmental Planner
_____Health Department
_____Transportation Manager
_____Commission of Revenue
_____Other _____

_____Inspections
_____Sheriff's Office
_____Town of Smithfield
_____Town of Windsor
_____VDOT
_____Schools
_____Budget & Finance
_____County Attorney

Verified By:_____ Date: _____

- Current zoning of adjacent parcel(s), including tax map number(s) and owner(s)
- Street names including route number and width(s) of the right-of-way(s)

☑ **One (1) original executed application**

☑ **One (1) digital copy of ALL application documents**

☑ **One (1) reduced 11"x17" copy of concept plan**

☑ **Application fee submitted with the application. Checks should be made payable to treasurer, Isle of Wight, County**

☐ **<u>For CBPA Exception applications</u>, a major water quality impact assessment which meets the criteria in Section 4003 of the Chesapeake Bay Preservation Area Ordinance must be submitted at the time of application.**

☐ Other information may be necessary to demonstrate compliance with all other applicable federal, state and County standards and regulations.

☐ All real estate taxes must be paid and current at the time of submittal; otherwise, the submittal willbe refused at the counter. Proof of the most recent tax payment to the County must accompany the application.

Please note that additional information on the site layout may be requested by the Zoning Administrator during the review process in order to more effectively review the application and prepare the staff reports for the appropriate reviewing body.

I, the undersigned, certify that this application is complete, accurate and contains all required and requested information, documents, and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete, and correct information available. I understand that any section not completed in its entirety may delay the processing of this application.

Jeffrey Stalvey

Printed or Typed Name

Signature

5/23/2025

Date

COUNTY OF ISLE OF WIGHT
DISCLOSURE OF REAL ESTATE HOLDINGS

Applicant: Jeff Stalnaker Bw Investment LLC

Address: 104 Stallion Ct Smithfield VA 23430

REAL ESTATE HOLDINGS TO BE AFFECTED

Location or Address	Description
42-06-006	Iwip Lot

OTHER OWNERS OF AFFECTED REAL ESTATE
(Not Required for Corporation whose stock is traded on a national or local stock exchange or having more than 500 shareholders.)

Name of Individuals Corporation/Partnership Business Association	Address
N/A	

Does any member of the Isle of Wight County Planning Commission or governing body have any interest in such property, either individually, by ownership of stock in a corporation owning such land, partnership, as the beneficiary of a trust, or the settlor of a revocable trust, or whether a member of the immediate household of any member of the Planning Commission or governing body has any such interest? Yes (No)

If yes, names of members:

I do solemnly swear that the foregoing statement(s) and attachments(s), if any, are complete, correct, and true.

Applicant: Jeffrey Stalnaker (Printed or Typed Name) Applicant: _____ (Signature) Date: 5/19/23

Commonwealth of Virginia
County of Isle of Wight

Subscribed and sworn to before me Nancy J. Begor (NJ) May 19th 2023
A Notary Public in and for the County of Isle of Wight, Commonwealth of Virginia, this 19 day of May, 2023.

Nancy J. Begor
Notary Public

My Commission Expires May 31, 2026

NANCY J BEGOR NOTARY PUBLIC REG# 7037275 MY COMMISSION EXPIRES 05/31/2026 COMMONWEALTH OF VIRGINIA

TOP OF BANK

EDGE OF WATER

N 14°23'34" W 295.86'

POND

20' SETBACK LINE

LOT 6
2.13 ACRES

BMP ACCESS EASEMENT

PAVED FLUME

TREELINE

LOT 7
2.841 ACRES

10' B.S.L.

20' SETBACK LINE

S 66°43'20" W 238.65'

500' HIGHWAY CORRIDOR LINE

WAREHOUSE
FF-44.07

RETAIL
FF-44.32

WAREHOUSE
FF-44.32

35' SETBACK LINE

10' MIN.

FIELD A

FIELD B

COMMERCE LANE

LOT 7

S 40°40'21"E 201.19'

S 38°54'32" E 99.86'

S 12°06'10"E 94.86'

DOUBLE BARREL 36" RCP INV=36.32

INV=37.02

INV=36.99

INV=36.37

OHE

RESHAPE DITCH
FILL IN DITCH

5' WIPEDOWN TC
M.E FL

6' F.E.S
INV=38.15

25' rod.

30LF- 30" RCP @ 0.83%

6' F.E.S.
INV=38.50

EXIT ONLY

IWIP RD.

24" ELLIPTICAL RCP

INV=39.03

INV=42.84

48LF- 15" RCP @ 0.5%

INV=42.60

E. DITCH

PIPE F.D.
OFFLINE

TBM
TOP END PIPE
ELEV=44.32

ASPHALT APRON

ASPHALT ENTRANCE

15" RCP
INV=42.75

15" RCP
INV=42.23

EXIST. S. NO
I/E ESMT.

GUY

TEL PED

DOV

PP

A/C

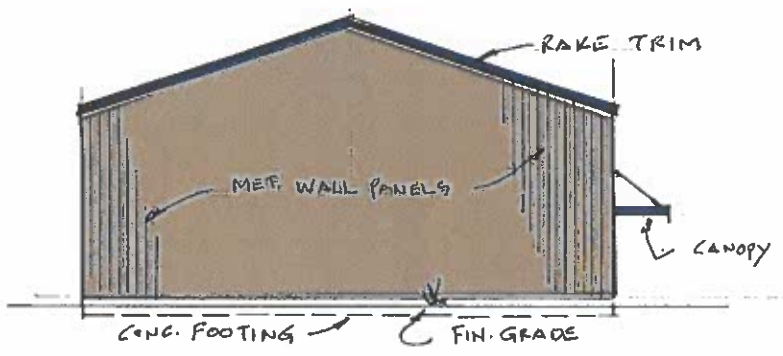
GRAPHIC SCALE : 1" = 20'

REVISIONS	
DESCRIPTION	
DATE	

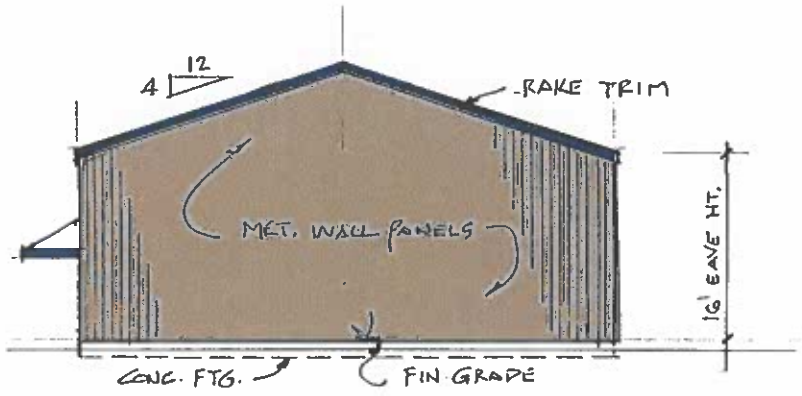
Commonwealth Engineering Group, Ltd.
CIVIL ENGINEERS - PLANNERS
12196 REDHOUSE ROAD
WINDSOR, VIRGINIA 23487
757-356-9140

SITE PLAN
FOR
PERFORMANCE ELECTRICAL SERVICES, INC.
T.P. 42-06-006
ISLE OF WIGHT COUNTY, VIRGINIA

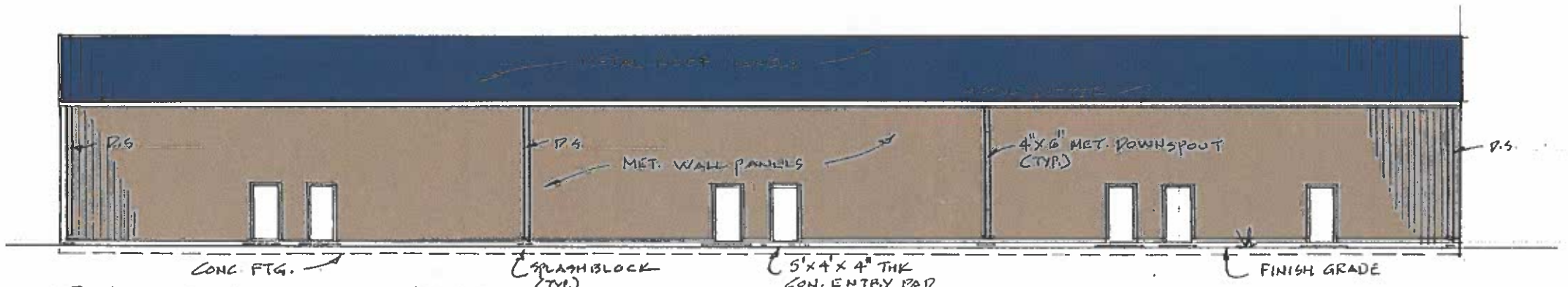
DRAWN: M.W.C.
DESIGNED: R.M.W.
SCALE: 1" = 20'
DATE: 08-07-19
SHEET: 3 OF
CEG 19-108



LEFT SIDE ELEVATION
SCALE: 1/8"=1'-0"



RIGHT SIDE ELEVATION
SCALE: 1/8" = 1'-0"



REAR ELEVATION
SCALE: 1/8"=1'-0"



FRONT ELEVATION
SCALE: 1/8" =1'-0"

REVISIONS | BY

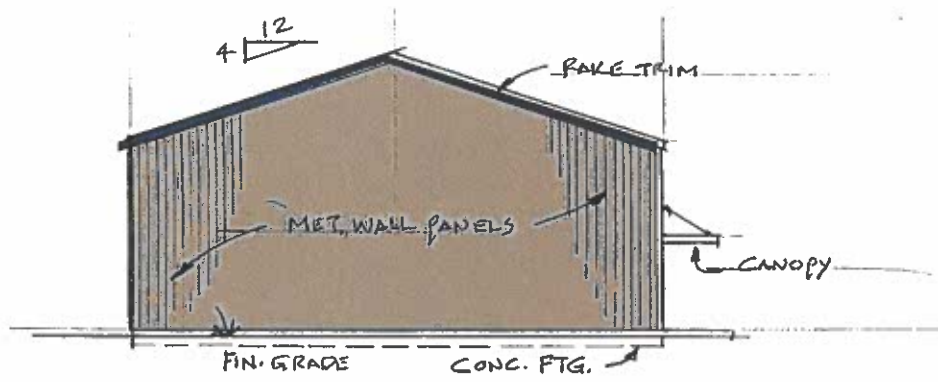
Verebely & Associates, Architects
Chesapeake Virginia

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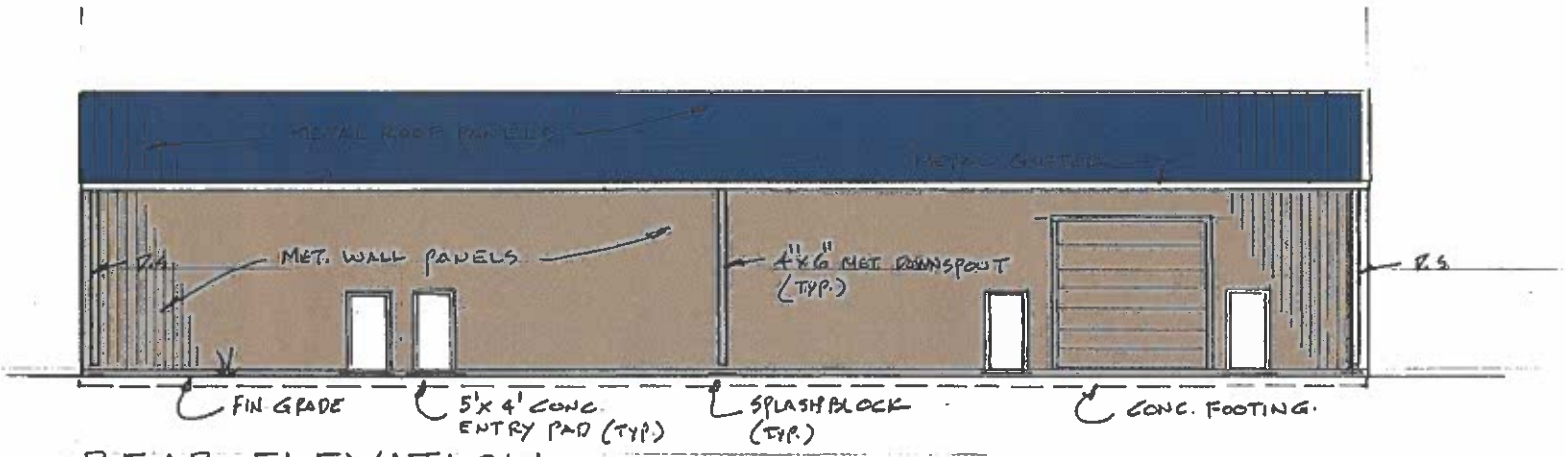
ELEVATIONS
OFFICE-WAREHOUSE (BLDG. #2)
PERFORMANCE ELECTRICAL SERVICES, INC.
COMMERCE LANE
ISLE OF WIGHT COUNTY, VA.

Date 7 APRIL 21
Scale —
Drawn VERB
Job 20-62
Sheet 3 of 4 Sheets

COMMONWEALTH OF VIRGINIA
4/07/21
WILLIAM VEREBELY JR
Lic No 4057
ARCHITECT



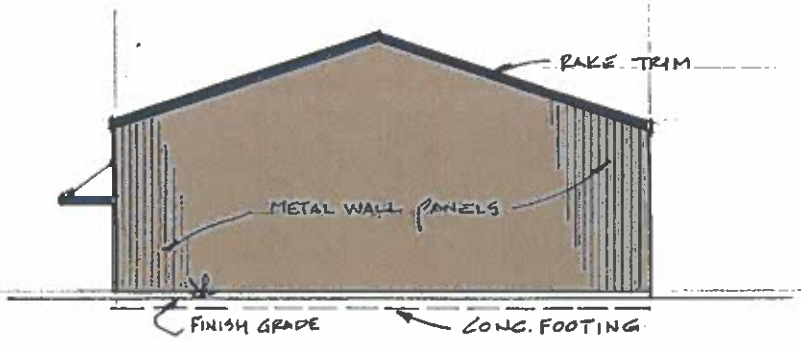
LEFT SIDE ELEVATION
SCALE: 1/8"=1'-0"



REAR ELEVATION
SCALE: 1/8"=1'-0"



FRONT ELEVATION
SCALE: 1/8"=1'-0"



RIGHT SIDE ELEVATION
SCALE: 1/8"=1'-0"

COMMONWEALTH OF VIRGINIA
4/07/21
MICHAEL W. VEREBELY, JR.
Reg. No. 4347
ARCHITECT

REVISIONS | BY

Verebely & Associates, Architects
Chesapeake Virginia

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ELEVATIONS
OFFICE-WAREHOUSE (BLDG. #1)
PERFORMANCE ELECTRICAL SERVICES, INC.
COMMERCE LANE
ISLE OF WIGHT COUNTY, VA.

Date 7 APRIL 21
Scale —
Drawn VERB
Job 20-56
Sheet 3 of 4 Sheets

COUNTY of ISLE OF WIGHT

THE COURTHOUSE

June 9, 1988

Mr. Richard L. Turner
c/o A. L. Jones
1613 South Church Street
Smithfield, Virginia 23430

Dear Mr. Jones:

Your client's application for a change in zoning classification to Conditional Industrial Limited, was considered and approved by the Isle of Wight County Board of Supervisors at its regular meeting on June 2, 1988, with the following conditions:

> The purpose of the application is for all permitted uses under Industrial Limited zoning except Blacksmith Shop, welding or machine shop, coal and wood yards, and airports. Proposed permitted uses shall also include the following commercial uses: retail food stores, auto and home appliance services, office buildings, service stations (with major repair under cover), lumber and building supply, including cabinet manufacturer (with storage under cover), plumbing and electrical supply (with storage under cover) and machinery sales and service.

Please be advised that the zoning reclassification approved by the Board of Supervisors may not be effective until the rezoned property has been surveyed and the plat recorded in the Clerk's Office and a copy delivered to the Department of Community Development. You should verify any such requirements with Ms. Sandy W. Whitley, Assistant Zoning Administrator.

Should you have any questions regarding this matter, please feel free to contact me.

Sincerely,

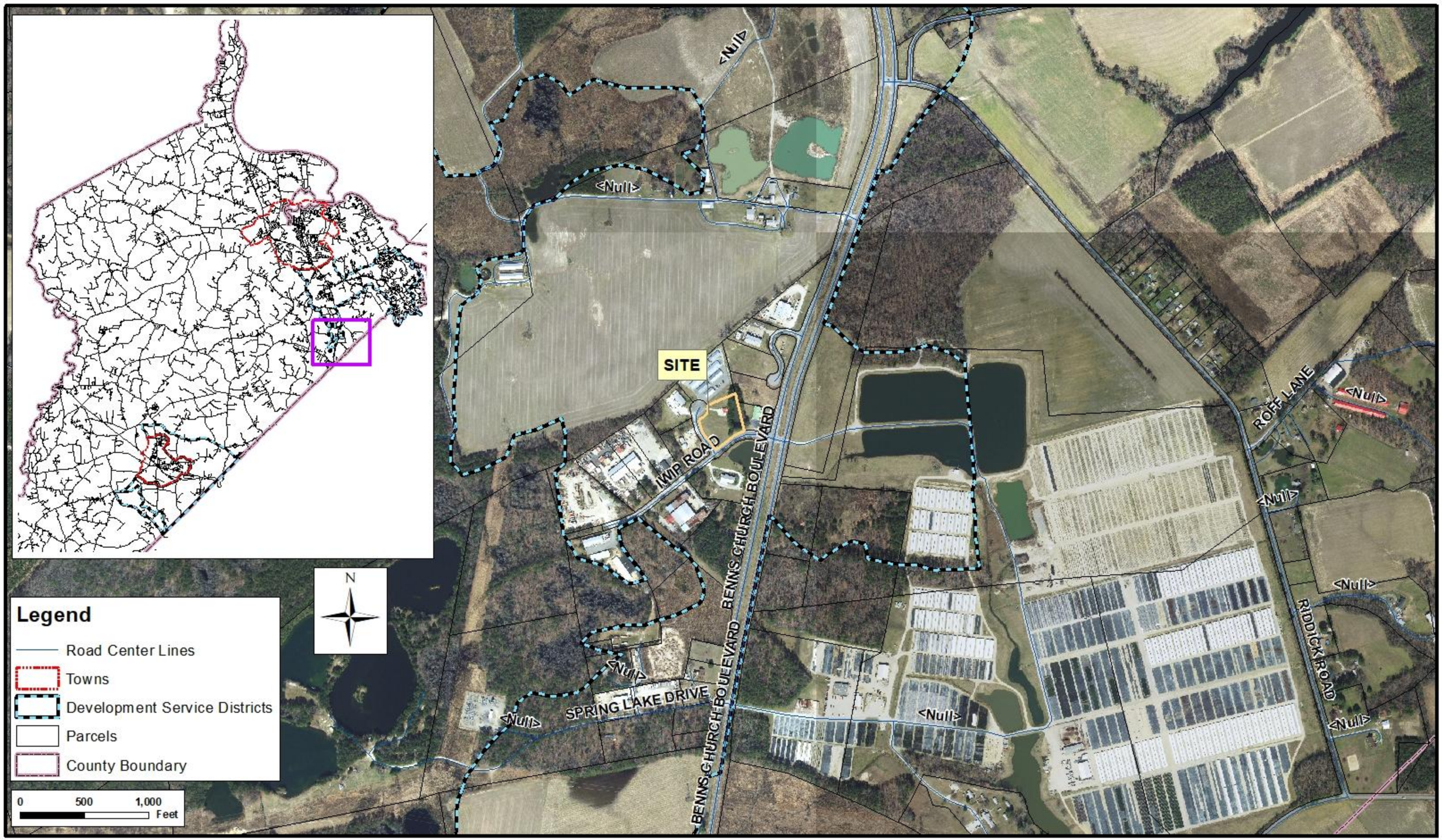
W. Douglas Caskey

W. Douglas Caskey
Assistant County Administrator/
Community Development

WDC/tbw

cc: Gerald Gwaltney

EXC-9-23 - Location Map



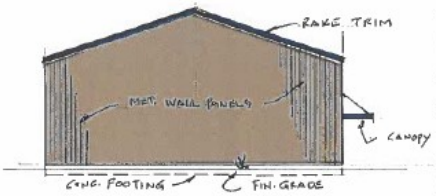


Site from IWIP RD.

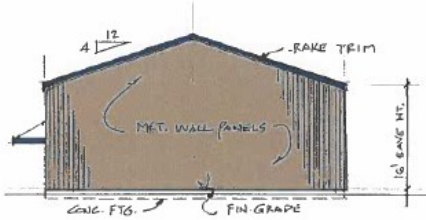


Site from Commerce Lane

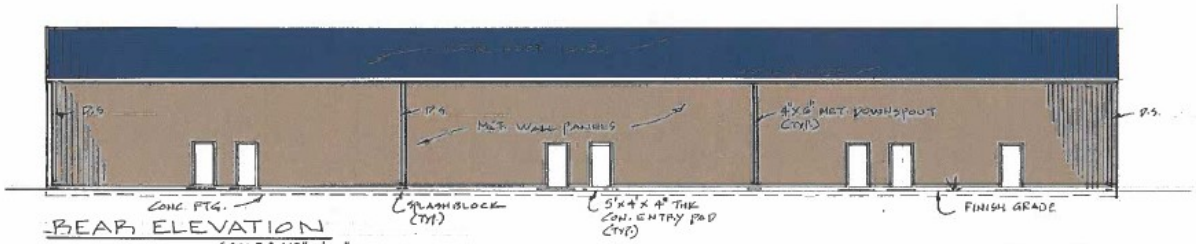
building is 180’ x 50’ x 16’ tall.
Front wall area is 180’ x 16’ = 2880 s.f.
4 overhead doors 12’ x 14’ = 672 s.f.
4 entry doors w/ sidelight 5’ x 7’ = 140 s.f.
4 windows 3’ x 4.5’ = 54 s.f.
3 storefront systems 18’ x 7’ = 378 s.f. includes entry doors.
Total = 1244 s.f.
1244/2880 = 43%



LEFT SIDE ELEVATION
SCALE: 1/8"=1'-0"



RIGHT SIDE ELEVATION
SCALE: 1/8" = 1'-0"



REAR ELEVATION
SCALE: 1/8"=1'-0"



FRONT ELEVATION
SCALE: 1/8" = 1'-0"

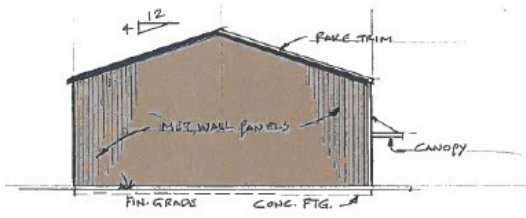
4/07/21

Verebely & Associates, Architects
Chesapeake Virginia

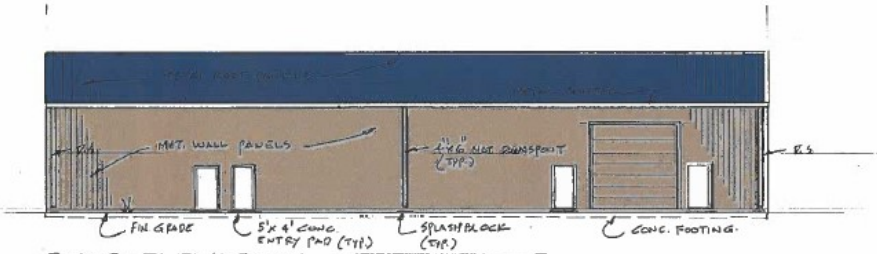
ELEVATIONS
OFFICE-WAREHOUSE (BLDG. #2)
FOR PERFORMANCE ELECTRICAL SERVICES, INC.
COMMERCE LANE
ISLE OF WIGHT COUNTY, VA.

Date APRIL 21
Scale
Drawn VERO
Job 20-62
Sheet 3 of 4 Sheets

building is 120’ x 50’ x 16’ tall.
Front wall area is 120 x 16 = 1920 s.f.
4 overhead doors 12’x 14’ = 672 s.f.
4 entry doors 3’ x 7’ = 84 s.f.
4 windows 3’x4.5’ = 54 s.f.
Total = 810 s.f.
810/1920 = 42.1%



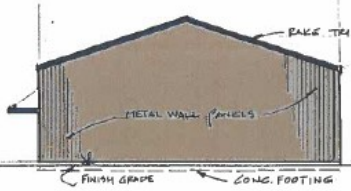
LEFT SIDE ELEVATION
SCALE: 1/8"=1'-0"



REAR ELEVATION
SCALE: 1/8" = 1'-0"



FRONT ELEVATION
SCALE: 1/8"=1'-0"



RIGHT SIDE ELEVATION
SCALE: 1/8" = 1'-0"

4/07/21

REVISIONS | BY

Verebely & Associates, Architects
Chesapeake Virginia

ELEVATIONS
OFFICE-WAREHOUSE (BLDG. #1)
FOR PERFORMANCE ELECTRICAL SERVICES, INC.
COMMERCE LANE
ISLE OF WIGHT COUNTY, VA.

Date 7 APRIL 21
Scale —
Drawn VERB
Job 20-56
Sheet 3
of 4 Sheets

PLANNING REPORT

APPLICATION:

Application of Bur Investment LLC, applicant and owner, for an Exception to Section 6-2010.A.1,2 and 3 of the Newport Development Service Overlay (NDSO) District Regulations in the Zoning Ordinance for the Property Located on Commerce Lane with Tax Map Number 42-06-006 for an Exception to the NDSO Design Standards for Building Façades, Exterior Walls, Windows and Building Materials

ELECTION DISTRICT:

D4

LOCATION:

The property is a 2.1 acre parcel located on Commerce Lane, inside the Isle of Wight County Industrial Park on property with tax map parcel number 42-06-006. The property is bounded to the south by IWIP Road, to the north and east by parcels included in the industrial park also in the Conditional-Limited Industrial zoning district, and to the west by Commerce Lane.

BACKGROUND:

The property is currently vacant. The site is a part of the original of the Isle of Wight Industrial Park which received zoning approval in 1988. A site plan was originally submitted in 2019 as a response to a notice of violation for shipping containers being stored on site not connected to a principal use.

The proposal is to add 4,500 square feet of retail space, 7,800 square feet of warehouse space, and 2,700 square feet of office space. The applicant has proposed to move his electrical business into 3,000 square feet of the building and lease space for other businesses in the remaining square footage.

As of January 2020, the parcel was added to the NDSO. During the most recent revision of the Comprehensive Plan the entire industrial park was included in the expansion of the NDSO.

The applicant submitted an application for an exception to the NDSO standards in June of 2023.

DESCRIPTION:

The applicant would like to construct a metal building. The applicant has stated allowing him to construct the building as seen in the attached elevations will not only be in line with the rest of the park but also be the most cost-effective way for him to construct and lease his building. As a result, the applicant requests an exception to the architectural and design guidelines of the NDSO District. The request is to the following ordinance requirements:

- 6-2010.A.1.a - states facades under two hundred (200) horizontal feet in length shall incorporate vertical elements and materials changes in the architectural design, breaking the visual monotony of the continuous façade.
- 6-2010.A.2.a - requires facades that face vehicle moving areas, excluding loading areas, shall contain windows between the height of three (3) feet and eight (8) feet for no less than fifty percent (50%) of the horizontal length of the building facade facing the public vehicle moving area. Windows shall be recessed and should include visually prominent sills, shutters, or other such forms of framing.
- 6-2010.A.3.a - prohibits the use of either concrete block, flat or corrugated metal, or vinyl siding walls for new development or expansion of existing development within the NDSO District.

COMPREHENSIVE LAND USE PLAN:

The 2020 Comprehensive Plan states that building design, which promotes the character of the Newport Development Service District (DSD) is encouraged. Architectural guidelines are recommended for non-residential structures to ensure compatible and positive aspects of the District's visual experience from the arterial roadways. Buildings should reflect an individual design that considers site location, conditions, intended use, and the character/building mass of the surrounding properties.

ORDINANCE REVIEW:

The property is in the Conditional Limited Industrial (C-LI) zoning district and the NDSO and Chesapeake Bay Preservation Area Overlay districts. The intent of the NDSO district regulations is to reduce incompatible and adverse impacts on the visual experience from the highway and provide continuity of site design within the proposed development.

Per section 6-2011.B., when granting an exception, the Board of Supervisors must consider the following criteria:

- Such exception shall be no less beneficial to the residents or occupants of the development, as well as the neighboring property, that would be obtained under the applicable regulation.
- That the exception is reasonable because of the high level of design and construction that will be incorporated into the development; and,
- That the exception will result in design and construction that is in accordance with accepted engineering and building standards.

AGENCY REVIEW:

Staff performed an analysis of the exception request and developed the following findings:

1. The proposed use and building are in accordance with neighboring properties inside the industrial park.
2. Beyond the metal siding, the building design includes such higher level design elements such as awnings over the entrances, a gabled, standing seam metal roof, and parking located in the interior of the site.

STAFF CONCLUSIONS:

Based on an analysis of the project, staff identified the following strengths and weaknesses for the proposed uses:

Strengths:

1. The building design will be similar to existing buildings within the industrial park.
2. The proposed use of the property would increase employment and revenues in the County.

Weaknesses:

1. The building will not meet the NDSO requirements.

STAFF RECOMMENDATION:

Based on the analysis above, the staff recommends approval of the exception request.

ATTACHMENTS:

Description	Type	Upload Date
Application	Backup Material	7/18/2023

Elevations	Backup Material	7/18/2023
Proffers	Backup Material	7/18/2023
Location Map	Backup Material	7/18/2023
Site Images	Backup Material	7/18/2023
Proposed Window and Door Percentages	Backup Material	7/19/2023

ISSUE:

Application of Advance Construction Development, LLC, Applicant and Owner, for an Amendment to Conditional Zoning to Add Parcel 42-01-007D to the Previously Approved Conditional Rezoning Application

BACKGROUND:

The property with tax map number 42-01-007D is 19.94 acres and is located at the end of IWIP Road. The property received its Conditional - Limited Industrial zoning as part of the original Isle of Wight Industrial Park in 1988, however, it does not share the same permitted uses as the other two properties that are part of this application. It is adjacent to other industrial uses to the east and agriculture and woodland to the north, south and west.

The applicant received approval for a conditional rezoning on parcels 42-01-006 and 42-06-015 in October 2022 for a scrap and salvage use in order to operate an automobile auction and storage facility. After the approval of the rezoning, the applicant submitted a required boundary line adjustment plat that included parcel 42-01-007D. Parcel 42-01-007D was not included in the original zoning application for the project nor included as part of the project area.

The applicant submitted a conditional zoning amendment application to include parcel 42-01-007D on July 27, 2023, as part of the project area for open space use only. The applicant has proffered that there will be no development, additional density, or impervious surfaces on parcel 42-01-007D.

BUDGETARY IMPACT:

None.

RECOMMENDATION:

With the proffer that no additional impervious or development will take place on parcel 42-01-007D, staff recommends approval of the application.

ATTACHMENTS:

Description	Type	Upload Date
Application	Backup Material	8/10/2023
Previous Proffers	Backup Material	8/10/2023

Amended Proffers	Backup Material	8/10/2023
Redline Proffers	Backup Material	8/10/2023
Draft Plat	Backup Material	8/10/2023

Revised 4/7/

Local Roots, Global Reach

ISLE OF WIGHT
COUNTY, VIRGINIA
DEPARTMENT OF PLANNING AND ZONING

APPLICATION FOR REZONING/CONDITIONAL ZONING AMENDMENT

This application should be used to petition for a change to the Official Zoning Map or for an amendment of zoning conditions. The following application requirements are consistent with the procedures set forth in Section 1-1015, *Amendments*, of the Isle of Wight County Zoning Ordinance, as amended.

A. APPLICATION FOR:

[ ] Rezoning

[ ] Conditional Rezoning (Are voluntary proffered conditions attached?): X Yes _____ No

Request to change the subject property(s) from the RAC & C-LI to the _____ zoning district.

Proposed Use or Activity: Auto Auction and Auto Storage Yard, as defined in Section 3-7000 as "Scrape and salvage service."

[✓] mendment to Conditional Zoning

Request to change conditional zoning as follows (Attach current and proposed conditions): See attached amended proffer.

B. PROJECT DESCRIPTION:

Project Name: Isle of Wight Auto Auction

Property Address (if any): Isle of Wight Industrial Park Road, Smithfield

Election District: Windsor

Comprehensive Plan Designation: Planned Industrial & Environmental Conservation

The rezoning will apply to 0 acres out of 19.94+/- total acres

Tax Parcel Identification # 42-01-007D Number of Acres to be Rezoned: 0

Requesting Zoning District Change from: C-LI to _____

Tax Parcel Identification # _____ Number of Acres to be Rezoned: _____

Requesting Zoning District Change from: _____ to _____

Tax Parcel Identification # _____ Number of Acres to be Rezoned: _____

Requesting Zoning District Change from: _____ to _____

Proposed Utilities (check all that apply): Public Water _____ Private Well _____

Public Sewer _____ Private Septic _____

C. **APPLICATION INFORMATION:**

Applicant(s) Name(s): Advanced Construction Development, LLC

Address: 10444 Greenbriar Place, Suite A

City, State, Zip Code: Oklahoma City, Oklahoma 73159

Phone No.: 405-691-4949 Email: sfulkerson@fulkersonlawoffice.com Fax No.: 405-691-4595

Property Owner(s) Name(s): Advance Construction Development

Address: 10444 Greenbriar Place, Suite A

City, State, Zip Code: Oklahoma City, Oklahoma 73159

Phone No.: 405-691-4949 Email: sfulkerson@fulkersonlawoffice.com Fax No.: 405-691-4545

S. Fulkerson OW 7/25/23

Applicant Signature **Date**

Owner Signature ***if different*** **Date**

NOTICE: THE ATTACHED CHECKLIST MUST BE COMPLETED, CERTIFIED, AND SUBMITTED OR THE APPLICATION WILL BE CONSIDERED INCOMPLETE.

Remit Application to: Isle of Wight County Central Permitting, 17140 Monument Circle, Suite 100
P. O. Box 80, Isle of Wight, Virginia 2339

FOR OFFICE USE ONLY:

Complete Application Received On: _____ Fees Paid: _____
Tax Query: [ ] Current [ ] Delinquent Distribution Date: _____
Posted/Date to Post: _____

AGENCIES EFERRALS:

_____ Department of Conservation & Recreation
_____ Economic Development
_____ Emergency Services
_____ General Services
_____ Environmental Planner
_____ Health Department
_____ Transportation Manager
_____ Commission of Revenue
_____ Other _____

_____ Inspections
_____ Sheriff's Office
_____ Town of Smithfield
_____ Town of Windsor
_____ VDOT
_____ Schools
_____ Budget & Finance
_____ County Attorney

Verified By: _____ Date: _____

REZONING/CONDITIONAL Z NING AMENDMENT APPLICATION CHECKLIST

****Both checklist and application required upon submission to central permitting or application will not be accepted****

In conjunction with Section 1-1015, *Amendments*, of the Isle of Wight County Zoning Ordinance, as amended, the following information shall be submitted for a Rezoning/Conditional Zoning Amendment Application. Please note that it is the applicant's responsibility to ensure that the application is in compliance with all Federal, State and County regulations.

No application for an exception shall be certified as complete unless the following information is provided. ***The required number of copies may be increased or reduced with permission of the Zoning Administrator, depending on the review needs.*** Applicant(s) must have their signature(s) notarized on the disclosure of real estate holdings.

- ☐ **Ten (10) copies of the following:**
  - ☐ original, executed application
  - ☐ a statement of the reasons for seeking a rezoning, and if applicable, a statement of proffered conditions with owner(s) original, notarized signature.
  - ☐ narrative description of current condition and use of the property, which shall include the tax parcel identification number
  - ☐ full size concept plan of the site to show all existing and proposed physical improvements and such other information as is necessary to clearly indicate to the reviewing body that adequate provisions have been made for compliance with all standards for that particular use, the extent of the property to be so used on a given parcel or parcels, and information defining the requested exceptions. The plan shall be prepared by the appropriate authorized design professional licensed to practice in Virginia. No person shall prepare or certify design elements of site plans which are outside the limits of their professional expertise and license. Such document shall be drawn to scale and shall include the following information:
    - A vicinity map at a scale of no less than one (1) inch equals two thousand (2,000) feet
    - Title of drawing
    - Date of drawing
    - Existing wood line
    - North arrow
    - Scale bar
    - Current zoning of parcel(s), including tax map number(s) and owner(s)
    - Current zoning of adjacent parcel(s), including tax map number(s) and owner(s)
    - Street names including route number and width(s) of the right-of-way(s)
  - ☐ any additional information required for the proposed use in accordance with Section 5-5000 *Supplementary Use Regulations,* of the Zoning Ordinance.
  - ☐ Community Impact Statement. Required for residential subdivisions of five (5) or more lots, planned development, commercial, industrial, or miscellaneous rezoning/conditional zoning amendment applications. Please refer to Section 1-1015.F for detailed requirements of the Community Impact Statement.
  - ☐ Water Quality Impact Assessment. For any rezoning in the Chesapeake Bay

Preservation Area prepared in accordance with Appendix B-1 of the County Code for applications containing any of the following:

- will disturb any portion of the 100-foot buffer area of a Resource Protection Area
- (RPA), or any component identified in Section 3000.B.1 of the Chesapeake Bay Preservation Area Ordinance;
- contains ten (10) acres or more for any use, other than a development of single family detached residential lots;
- contains twenty-five (25) acres or more for the development of single family detached residential lots; or,
- any other development that may warrant such assessment due to the unique
- characteristics of the site or intensity of the proposed use or development, as may be required by the Zoning Administrator.

☐ Planned Development supplemental information shall be submitted in accordance with Section 4-14005, *Submission Requirements,* of the Zoning Ordinance

☐ **One (1) original executed application**

☐ **One (1) digital copy of ALL application documents**

☐ **One (1) reduced 11"x17" copy of concept plan**

☐ **Voluntary Proffer Statement if applicable**

☐ **Waiver and Release of Claims if cash proffer is proposed**

☐ **Application fee submitted with the application. Checks should be made payable to treasurer, Isle of Wight, County**

☐ **Other information may be necessary to demonstrate compliance with all other applicable federal, state and County standards and regulations.**

☐ **All real estate taxes must be paid and current at the time of submittal; otherwise, the submittal will be refused at the counter. Proof of the most recent tax payment to the County must accompany the application.**

I, the undersigned, certify that this application is complete, accurate and contains all required and requested information, documents and other submittals, and that all statements made herein are, to the best of my knowledge, true and correct. I further certify that I have exercised due diligence to obtain the most recent, complete and correct information available. I understand that any section not completed in its entirety may delay processing of this application and the date of the Planning Commission public hearing and that the submittal of a complete application does not guarantee the application will be placed on the next available Planning Commission agenda.

J.S. Fulkerson
Name

J.S. Fulkerson OM
Signature

7/17/23
Date

COUNTY OF ISLE OF WIGHT
DISCLOSURE OF REAL ESTATE HOLDINGS

Applicant: Advanced Construction Development, LLC

Address: 10444 Greenbriar Place, Suite A, Oklahoma City, Oklahoma 73159

REAL ESTATE HOLDINGS TO BE AFFECTED

Location or Address	Description
42-01-007D	Industrial parcel - C-LI

OTHER OWNERS OF AFFECTED REAL ESTATE
(Not Required for Corporation whose stock is traded on a national or local stock exchange or having more than 500 shareholders.)

Name of Individuals Corporation/Partnership Business Association	Address
N/A	

Does any member of the Isle of Wight County Planning Commission or governing body have any interest in such property, either individually, by ownership of stock in a corporation owning such land, partnership, as the beneficiary of a trust, or the settlor of a revocable trust, or whether a member of the immediate household of any member of the Planning Commission or governing body has any such interest? Yes X No

If yes, names of members:

I do solemnly swear that the foregoing statement(s) and attachments(s), if any, are complete, correct, and true.

Applicant: J.S. Fulkerson (Printed or Typed Name) Applicant: [signature] (Signature) Date: 7/17/23

Commonwealth of ~~Virginia~~ Oklahoma
County of ~~Isle of Wight~~ Oklahoma

Subscribed and sworn to before me Angela Scheets
A Notary Public in and for the County of ~~Isle of Wight, Commonwealth of Virginia~~ Oklahoma, State of Oklahoma, this 19th day of July, 2023.

Angela Scheets
Notary Public # 14001679

My Commission Expires 02-21-2026

ANGELA SCHEETS NOTARY PUBLIC # 14001679 EXP. 02/21/26 STATE OF OKLAHOMA

Amendment to Conditional Rezoning for 42-01-006 and 42-06-015 **8/9/2023**

NARRATIVE
OF PROPOSED USE

The Applicant, Insurance Auto Auctions, Incorporated (IAAI), requests an amendment of the Conditional Rezoning approved on October 20, 2022, by the Isle of Wight Board of Supervisors to include the area formerly designated as 42-01-007D. Operations related to the Conditional Rezoning, approved on October 20, 2022 by the Isle of Wight County Board of Supervisors, will not extend onto the area designated as Parcel 42-01-007D, which is to be incorporated into the project area. Additionally, this area shall have no additional Impervious Cover within the definition established by the Chesapeake Bay Preservation Area Ordinance, adopted within the Code of the County of Isle of Wight. Nor shall it have any additional Impervious surface within the definition established by Sec. 2-1002 of the Code of the County of Isle of Wight. The area is also subject to the easements recorded at Deed Book 173, Page 330; Deed Book 139, Page 317; and Deed Book 243, Page 243.

AMENDED PROFFER STATEMENT

The Applicant, Advanced Construction Development, LLC, requests (i) parcel Tax Map No: 42-06-015 have its conditional zoning amended to allow the following proposed use: Auto Auction and Auto Storage Yard, as defined in Isle of Wight Code of Ordinances, Appendix B, Article III, Section 3-7000, as "Scrap and Salvage Service," and (ii) a conditional rezoning for a portion of parcel Tax Map No: 42-01-006 also for the same proposed use labeled "Scrap and Salvage Service."

These Amended Proffer Statements ("Proffers") supersede any and all prior proposed proffers.

These Proffers are made as of the 2 of August, 2022 by Advanced Construction Development, LLC ("Applicant"), developer of Tax Map Number 42-06-015, and a portion of 42-01-006 for an approximate aggregate total of 74.79 acres of land which is referred to herein as the "Subject Property." Applicant has filed a rezoning application with the Isle of Wight County Planning and Zoning Department requesting (i) the conditional zoning of parcel Tax Map No: 42-06-015 be amended to allow "Scrap and Salvage Service," and (ii) a conditional rezoning for a portion of parcel Tax Map No: 42-01-006 from Rural Agricultural Conservation (RAC) to Conditional – Limited Industrial (C-LI). Applicant voluntarily proffers that the development of the Subject Property proposed for rezoning under this application shall be in strict accordance with the conditions set forth below.

These Proffers are the only conditions offered on this rezoning, and any prior proffers on the Subject Property are hereby superseded by these proffers and any and all previous proffers on the Subject Property are hereby void and of no further force and effect.

All improvements, land, easements, dedications, gifts, proffers and other conveyances to the County shall be in fee simple, without cloud of title or encumbrance of any kind.

1. Each vehicle shall be sold as a single unit (meaning not dismantled nor sold in parts). There shall be no dismantling, servicing or maintenance of vehicles on the grounds of this facility. No parts shall be offered for sale from vehicles stored at this facility. All vehicles sold from this facility shall be sold in the same condition in which they arrived at the time of delivery to the site.

2. Upon arrival, the vehicles shall be inspected to prevent any possible contaminant leaks. Any leaks discovered during such inspection shall be contained prior to placement of the vehicle in the storage area. IAAI shall not dismantle vehicles, drain fluids, or sell vehicle parts.

3. Normal operating hours shall not exceed from 6:00 am until 10:00 pm daily; except that in the case of regional catastrophes, such as a hurricane or widespread flooding, in which case(s) the facility may accept vehicle deliveries outside normal operating hours. The drop zone shall be segregated from the remainder of the yard by interior fencing.

[The remainder of this page left blank intentionally]

Applicant: Advanced Construction Development, LLC

Applicant: _____ Date: 8-1-2022
Signature

State of Oklahoma: County of Cleveland
Subscribed and sworn to before me Angela Scheets,
A Notary Public in and for the County of Cleveland, State of Oklahoma,
this 1st day of August, 2022.

ANGELA SCHEETS NOTARY PUBLIC # 14001679 EXP. 02/21/26 STATE OF OKLAHOMA

_____ My Commission Expires: 02-21-2026
Notary Public

(Owners' signatures follow in separate pages.)

Applicant: Advanced Construction Development, LLC

Applicant: _____ Date: _____
Signature

State of Oklahoma: County of Cleveland
Subscribed and sworn to before me _____,
A Notary Public in and for the County of Cleveland, State of Oklahoma,
this _____ day of August, 2022.

_____ My Commission Expires: _____
Notary Public Notary Registration Number: _____

Owner: Locust Grove Partners, LP

Owner: _____ Date: 8/2/2022
Signature

COMMONWEALTH OF VIRGINIA
COUNTY/CITY OF Isle of Wight, to wit:

The foregoing instrument was acknowledged before me this 2nd day of August, 2022 by Robert P. Taylor.

Angela Y. Hunt Notary Registration Number: 7991468
Notary Public My commission expires: March 31, 2026

ANGELA Y HUNT
NOTARY PUBLIC
REG. # 7991468
COMMONWEALTH OF VIRGINIA
MY COMMISSION EXPIRES MARCH 31. 2026

Owner: H & B Railroad Company Inc.

Owner: _____ Date: _____
Signature

COMMONWEALTH OF VIRGINIA
COUNTY/CITY OF _____, to wit:

The foregoing instrument was acknowledged before me this ___ day of August, 2022 by _____.

_____ Notary Registration Number: _____
Notary Public My commission expires: _____

Applicant: Advanced Construction Development, LLC

Applicant: _____ Date: _____
Signature

State of Oklahoma: County of Cleveland
Subscribed and sworn to before me _____,
A Notary Public in and for the County of Cleveland, State of Oklahoma,
this _____ day of August, 2022.

_____ My Commission Expires: _____
Notary Public Notary Registration Number: _____

Owner: Locust Grove Partners, LP

Owner: _____ Date: _____
Signature

COMMONWEALTH OF VIRGINIA
COUNTY/CITY OF _____, to wit:

The foregoing instrument was acknowledged before me this ___ day of August, 2022 by _____.

_____ Notary Registration Number: _____
Notary Public My commission expires: _____

Owner: H & B Railroad Company Inc.

Owner: _____ Date: 8/1/2022
Signature

COMMONWEALTH OF VIRGINIA
COUNTY/CITY OF CHESAPEAKE, to wit:

The foregoing instrument was acknowledged before me this 1ST day of August, 2022 by DANIEL MOORE, PRESIDENT OF H&B RAILROAD COMPANY INC.

_____ Notary Registration Number: 7864872
Notary Public My commission expires: 02/29/2024

KAELANI RENEE GARCIA
NOTARY PUBLIC
COMMONWEALTH OF VIRGINIA
REGISTRATION NO. 7864872
MY COMM. EXPIRES 02/29/2024

COUNTY OF ISLE OF WIGHT
AMENDED PROFFER STATEMENT

Applicant's name: Advanced Construction Development, LLC

Owners name: Advanced Construction Development LLC

Project Name: Auto Auction Salvage Yard

Date: Approved October 20, 2022, amended, August 9, 2023

Parcel- Tax Map Numbers: 42-06-015, 42-01-006 and 42-06-007D

The Applicant, Advanced Construction Development, LLC, requests (i) parcel Tax Map No: 42-06-015 have its conditional zoning amended to allow the following proposed use: Auto Auction and Auto Storage Yard, as defined in Isle of Wight Code of Ordinances, Appendix B, Article III, Section 3-7000, as "Scrap and Salvage Service," and (ii) a conditional rezoning for a portion of parcel Tax Map No: 42-01-006 also for the same proposed use labeled "Scrap and Salvage Service."

These Amended Proffer Statements ("Proffers") supersede any and all prior proposed proffers.

These Proffers are made as of the 9th of August, 2023 by Advanced Construction Development, LLC ("Applicant"), developer of Tax Map Number 42-06-015, and a portion of 42-01-006 for an approximate aggregate total of 74.79 acres of land which is referred to herein as the "Subject Property." Applicant filed a rezoning application with the Isle of Wight County Planning and Zoning Department requesting (i) the conditional zoning of parcel Tax Map No: 42-06-015 be amended to allow "Scrap and Salvage Service," and (ii) a conditional rezoning for a portion of parcel Tax Map No: 42-01-006 from Rural Agricultural Conservation (RAC) to Conditional – Limited Industrial (C-LI) which was approved on October 20, 2022. Applicant voluntarily proffers that the development of the Subject Property shall be in strict accordance with the conditions set forth below and as hereby revised to include condition number 4 under this Conditional Zoning Amendment.

These Proffers are the only conditions offered on this rezoning, and any prior proffers on the Subject Property are hereby superseded by these proffers and any and all previous proffers on the Subject Property are hereby void and of no further force and effect.

All improvements, land, easements, dedications, gifts, proffers and other conveyances to the County shall be in fee simple, without cloud of title or encumbrance of any kind.

1. Each vehicle shall be sold as a single unit (meaning not dismantled nor sold in parts). There shall be no dismantling, servicing or maintenance of vehicles on the grounds of this facility. No parts shall be offered for sale from vehicles stored at this facility. All vehicles sold from this facility shall be sold in the same condition in which they arrived at the time of delivery to the site.

2. Upon arrival, the vehicles shall be inspected to prevent any possible contaminant leaks. Any leaks discovered during such inspection shall be contained prior to placement of the vehicle in the storage area. IAAI shall not dismantle vehicles, drain fluids, or sell vehicle parts.

3. Normal operating hours shall not exceed from 6:00 am until 10:00 pm daily; except that in the case of regional catastrophes, such as a hurricane or widespread flooding, in which case(s) the facility may accept vehicle deliveries outside normal operating hours. The drop zone shall be segregated from the remainder of the yard by interior fencing.

4. Operations related to the Conditional Rezoning, approved on October 20, 2022 by the Isle of Wight County Board of Supervisors, will not extend onto the area currently designated as Parcel 42-01-007D compromising 19.94 acres, which is to be incorporated into the project Additionally, this area shall have no additional Impervious Cover within the definition established by the Chesapeake Bay Preservation Area Ordinance, adopted within the Code of the County of Isle of Wight. Nor shall it have any additional Impervious surface within the definition established by Sec. 2-1002 of the Code of the County of Isle of Wight. The area is also subject to the easements recorded at Deed Book 173, Page 330; Deed Book 139, Page 317; and Deed Book 243, Page 243.

Applicant: Advanced Construction Development, LLC

Applicant: _____ Date: _____
Signature

State of Oklahoma: County of Cleveland
Subscribed and sworn to before me _____,
A Notary Public in and for the County of Cleveland, State of Oklahoma,
this _____ day of August, 2023.

_____ My Commission Expires: _____
Notary Public Notary Registration Number: _____

COUNTY OF ISLE OF WIGHT
AMENDED PROFFER STATEMENT

Applicant's name: Advanced Construction Development, LLC

Owners name: Advanced Construction Development LLC

Project Name: Auto Auction Salvage Yard

Date: Approved October 20,2022 amended, August 9, 2023

Parcel- Tax Map Numbers: 42-06-015, 42-01-006 and 42-06-007D

The Applicant, Advanced Construction Development, LLC, requests (i) parcel Tax Map No: 42-06-015 have its conditional zoning amended to allow the following proposed use: Auto Auction and Auto Storage Yard, as defined in Isle of Wight Code of Ordinances, Appendix B, Article III, Section 3-7000, as "Scrap and Salvage Service," and (ii) a conditional rezoning for a portion of parcel Tax Map No: 42-01-006 also for the same proposed use labeled "Scrap and Salvage Service."

These Amended Proffer Statements ("Proffers") supersede any and all prior proposed proffers.

These Proffers are made as of the _____ of August, ~~2022~~2023 by Advanced Construction Development, LLC ("Applicant"), developer of Tax Map Number 42-06-015, and a portion of 42-01-006 for an approximate aggregate total of 74.79 acres of land which is referred to herein as the "Subject Property." Applicant ~~has~~ filed a rezoning application with the Isle of Wight County Planning and Zoning Department requesting (i) the conditional zoning of parcel Tax Map No: 42-06-015 be amended to allow "Scrap and Salvage Service," and (ii) a conditional rezoning for a portion of parcel Tax Map No: 42-01-006 from Rural Agricultural Conservation (RAC) to Conditional – Limited Industrial (C-LI~~).~~) which was approved on October 20, 2022. Applicant voluntarily ~~proffers~~proffered that the development of the Subject Property ~~proposed for rezoning under this application~~ shall be in strict accordance with the conditions set forth below~~.~~ and as hereby revised to include condition number 4 under this Conditional Zoning Amendment.

These Proffers are the only conditions offered on this rezoning, and any prior proffers on the Subject Property are hereby superseded by these proffers and any and all previous proffers on the Subject Property are hereby void and of no further force and effect.

All improvements, land, easements, dedications, gifts, proffers and other conveyances to the County shall be in fee simple, without cloud of title or encumbrance of any kind.

1. Each vehicle shall be sold as a single unit (meaning not dismantled nor sold in parts). There shall be no dismantling, servicing or maintenance of vehicles on the grounds of this facility. No parts shall be offered for sale from vehicles stored at this facility. All vehicles sold from this facility shall be sold in the same condition in which they arrived at the time of delivery to the site.

2. Upon arrival, the vehicles shall be inspected to prevent any possible contaminant leaks. Any leaks discovered during such inspection shall be contained prior to placement of the vehicle in the storage area. IAAI shall not dismantle vehicles, drain fluids, or sell vehicle parts.

3. Normal operating hours shall not exceed from 6:00 am until 10:00 pm daily; except that in the case of regional catastrophes, such as a hurricane or widespread flooding, in which case(s) the facility may accept vehicle deliveries outside normal operating hours. The drop zone shall be segregated from the remainder of the yard by interior fencing.
~~[The remainder of this page left blank intentionally]~~

4. Operations related to the Conditional Rezoning, approved on October 20, 2022 by the Isle of Wight County Board of Supervisors, will not extend onto the area currently designated as Parcel 42-01-007D compromising 19.94 acres, which is to be incorporated into the project Additionally, this area shall have no additional Impervious Cover within the definition established by the Chesapeake Bay Preservation Area Ordinance, adopted within the Code of the County of Isle of Wight. Nor shall it have any additional Impervious surface within the definition established by Sec. 2-1002 of the Code of the County of Isle of Wight. The area is also subject to the easements recorded at Deed Book 173, Page 330; Deed Book 139, Page 317; and Deed Book 243, Page 243.

Applicant: Advanced Construction Development, LLC

Applicant: _____ Date: _____
Signature

State of Oklahoma: County of Cleveland
Subscribed and sworn to before me _____,
A Notary Public in and for the County of Cleveland, State of Oklahoma,
this _____ day of August, ~~2022~~2023.

_____ My Commission Expires: _____
Notary Public Notary Registration Number: _____

~~Owner: Locust Grove Partners, LP~~

~~Owner: _____ Date: _____~~
~~Signature~~

~~COMMONWEALTH OF VIRGINIA~~
~~COUNTY/CITY OF _____, to wit:~~

~~The foregoing instrument was acknowledged before me this ___ day of August, 2022 by _____.~~

~~_____ Notary Registration Number: _____~~
~~Notary Public My commission expires: _____~~

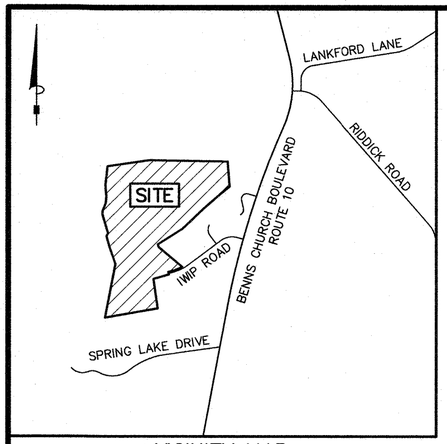
~~Owner: H & B Railroad Company Inc.~~

~~Owner: _____ Date: _____~~
~~Signature~~

~~COMMONWEALTH OF VIRGINIA~~
~~COUNTY/CITY OF _____, to wit:~~

~~The foregoing instrument was acknowledged before me this ___ day of August, 2022 by _____.~~

~~_____ Notary Registration Number: _____~~
~~Notary Public My commission expires: _____~~



VICINITY MAP
SCALE: 1"=2,000'

NOTES
1. PROPERTIES SHOWN HEREON ARE LOCATED IN ZONE X AS SHOWN ON FLOOD INSURANCE RATE MAP COMMUNITY NUMBER 510303, MAP NUMBER 51093C0165E, EFFECTIVE DATE DECEMBER 2, 2015.
2. THE PROPERTIES SHOWN HEREON ARE ZONED:
   PARCEL ID 42–01–007D: LI (LIMITED INDUSTRIAL)
   PARCEL IDS 42–01–006 & 42–06–015:
   C–LI (CONDITIONAL LIMITED INDUSTRIAL) AS APPROVED BY THE BOARD OF SUPERVISORS OCT. 20, 2022
   - LI – LIMITED INDUSTRIAL DISTRICT
     THE MINIMUM SETBACKS ARE AS FOLLOWS:
     FRONT: 35' (FEET) – INDUSTRIAL USES SHALL MEET A SETBACK OF ONE HUNDRED (100) FEET, EXCEPT THAT OFFICE BUILDING ASSOCIATED WITH THE INDUSTRIAL USE MAY MEET THE MINIMUM THIRTY–FIVE (35) FEET SETBACK. FOR LOTS WITHIN A DESIGNATED INDUSTRIAL PARK OF TWENTY (20) ACRES OR MORE, OFFICE BUILDINGS ASSOCIATED WITH INDUSTRIAL USE SHALL MEET A SETBACK OF THIRTY–FIVE (35) FEET.
     SIDE: 20' (FEET)
     REAR: 20' (FEET)
     MINIMUM LOT SIZE: 20,000 S.F.
     MINIMUM LOT WIDTH: 100' (FEET)
     MAXIMUM BUILDING HEIGHT: 75' (FEET)
3. THE PROPERTIES SHOWN HEREON IDENTIFIED AS PARCEL IDS 42–01–006, 42–06–015 & 42–01–007D.
4. THIS PROPERTY WAS PREPARED WITHOUT THE BENFIT OF A TITLE REPORT. PROPERTY MAY BE SUBJECT TO EASEMENTS AND SERVITUDES OF RECORD.
5. ANY NEW STRUCTURE MUST BE BUILT TO MEET THE MINIMUM REQUIRED YARD SETBACKS IN ACCORDANCE WITH THE IWCZO AND THE HCOD/NDSO. ANY VARIATION THERETO MUST BE IN COMPLIANCE WITH SAID ORDINANCE.
6. THIS SUBDIVISION IS A SALE OR EXCHANGE BETWEEN ADJOINING LANDOWNERS NOT CREATING A NEW PARCEL. SALE OR CONVEYANCE IN ANY OTHER MANNER WILL REQUIRE FULL COMPLIANCE WITH THE SUBDIVISION ORDINANCE.

BOUNDARY LINE ADJUSTMENT
& PROPERTY LINE VACATION
BETWEEN THE PROPERTIES OF
LOCUST GROVE PARTNERS, LP
AND
PORTAGE PROPERTY PARTNERS, LLC
NEWPORT MAGISTERIAL DISTRICT
ISLE OF WIGHT COUNTY, VIRGINIA
SCALE: 1"=200' DATE: JANUARY 31, 2023

DAVIS & ASSOCIATES, P.C.
SURVEYORS – PLANNERS
#3630 GEORGE WASHINGTON
MEMORIAL HIGHWAY – SUITE G
YORKTOWN, VIRGINIA 23693
SHEET 1 OF 2

0 200' 400' 600'

GRAPHIC SCALE
1"=200'

– S Y M B O L S –
- DENOTES IRON PIPE FOUND
- DENOTES IRON ROD FOUND
- DENOTES IRON ROD TO BE SET AT ALL PROPERTY LINE JUNCTURES
- DENOTES CONCRETE MONUMENT FOUND
- DENOTES CONCRETE MONUMENT TO BE SET

OWNER'S CONSENT
THE PLATTING OF THE LAND HEREON SHOWN IS WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE UNDERSIGNED OWNERS, PROPRIETORS, AND TRUSTEES IF ANY.

PORTAGE PROPERTY PARTNERS, LLC DATE
MANAGING MEMBER

LOCUST GROVE PARTNERS, LP DATE
MANAGING MEMBER

NOTARY PUBLIC FOR
PORTAGE PROPERTY PARTNERS, LLC

STATE OF_____
COUNTY/CITY OF_____TO WIT:

I,_____, A NOTARY PUBLIC IN AND FOR THE _____ OF_____ DO HEREBY CERTIFY THAT THE ABOVE NAMED PERSONS WHOSE NAMES ARE SIGNED TO THE FOREGOING WRITING HAVE ACKNOWLEDGED THE SAME BEFORE ME IN MY JURISDICTION AFORESAID. GIVEN UNDER MY HAND THIS ____ DAY OF _____, 20___.

NOTARY PUBLIC REGISTRATION NO.

MY COMMISSION EXPIRES: _____

NOTARY PUBLIC FOR
LOCUST GROVE PARTNERS, LP

STATE OF_____
COUNTY/CITY OF_____TO WIT:

I,_____, A NOTARY PUBLIC IN AND FOR THE _____ OF_____ DO HEREBY CERTIFY THAT THE ABOVE NAMED PERSONS WHOSE NAMES ARE SIGNED TO THE FOREGOING WRITING HAVE ACKNOWLEDGED THE SAME BEFORE ME IN MY JURISDICTION AFORESAID. GIVEN UNDER MY HAND THIS ____ DAY OF _____, 20___.

NOTARY PUBLIC REGISTRATION NO.

MY COMMISSION EXPIRES: _____

SURVEYOR'S CERTIFICATION
TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL THE REQUIREMENTS SET FORTH IN THE ORDINANCE FOR APPROVING PLATS OF SUBDIVISION IN ISLE OF WIGHT COUNTY, VIRGINIA HAVE BEEN COMPLIED WITH, INCLUDING A CLOSURE OF NOT LESS THAN 1'/20,000'. THIS IS TO CERTIFY THAT THE LAND EMBRACED IN THIS BOUNDARY LINE ADJUSTMENT IS IN THE NAME OF:

PARCEL ID 42–01–006:
LOCUST GROVE PARTNERS LP, A VIRGINIA LIMITED PARTNERSHIP, AND WAS ACQUIRED FROM ROBERT P. TAYLOR, JR., BY DEED DATED FEBRUARY 14, 2007, AND DULY RECORDED IN THE CLERK'S OFFICE OF THE ISLE OF WIGHT COUNTY CIRCUIT COURT ON MAY 17, 2007 IN INST. #070003355.

PARCEL ID 42–06–015:
PORTAGE PROPERTY PARTNERS, LLC, A VIRGINIA LIMITED LIABILITY COMPANY, AND WAS ACQUIRED FROM H & B RAILROAD COMPANY, INC. A VIRGINIA CORPORARTION, BY DEED DATED JANUARY 20, 2023, AND DULY RECORDED IN THE CLERK'S OFFICE OF THE ISLE OF WIGHT COUNTY CIRCUIT COURT ON JANUARY 23, 2023 IN INST. #230000229.

PARCEL ID 42–01–007D:
PORTAGE PROPERTY PARTNERS, LLC, A VIRGINIA LIMITED LIABILITY COMPANY, AND WAS ACQUIRED FROM ADVANCED CONSTRUCTION DEVELOPMENT, LLC, AN OKLAHOMA LIMITED LIABILITY COMPANY, BY DEED DATED MAY 18, 2023, AND DULY RECORDED IN THE CLERK'S OFFICE OF THE ISLE OF WIGHT COUNTY CIRCUIT COURT ON MAY 31, 2023 IN INST. #230001849.
PROPERTY SUBJECT TO DECLARATION OF RESTRICTIONS DATED JULY 20, 2006, AND DULY RECORDED IN THE CLERK'S OFFICE OF THE ISLE OF WIGHT COUNTY CIRCUIT COURT ON JULY 21, 2006 IN INST. #060005618.

I CERTIFY THAT MONUMENTS AND IRON RODS AS SHOWN ON THIS PLAT WILL BE SET ON OR BEFORE NOVEMBER 31, 2023.

DONALD W. DAVIS, L.S. DATE

COMMONWEALTH OF VIRGINIA
DONALD W. DAVIS
Lic. No. 1402(a)
Lic. No. 1418(b)
LAND SURVEYOR

CERTIFICATE OF APPROVAL
THIS PLAT IS APPROVED BY THE UNDERSIGNED IN ACCORDANCE WITH EXISTING SUBDIVISION REGULATIONS AND MAY BE ADMITTED TO RECORD.

APPROVED:_____ DATE:_____
AGENT OR REPRESENTATIVE OF COUNTY

APPROVED:_____ DATE:_____
VDOT RESIDENT ENGINEER

STATE OF VIRGINIA
ISLE OF WIGHT COUNTY
IN THE CLERK'S OFFICE OF THE ISLE OF WIGHT COUNTY CIRCUIT COURT THIS_____ DAY OF_____20__, THIS MAP WAS PRESENTED AND ADMITTED TO RECORD AS THE LAW DIRECTS AS INSTRUMENT #_____

TESTE:_____
CLERK

BY:_____

23–0037

BOUNDARY LINE ADJUSTMENT
& PROPERTY LINE VACATION
BETWEEN THE PROPERTIES OF

LOCUST GROVE PARTNERS, LP
AND
PORTAGE PROPERTY PARTNERS, LLC

NEWPORT MAGISTERIAL DISTRICT
ISLE OF WIGHT COUNTY, VIRGINIA
SCALE: 1"=200' DATE: JANUARY 31, 2023

DAVIS & ASSOCIATES, P.C.
SURVEYORS – PLANNERS
#3630 GEORGE WASHINGTON
MEMORIAL HIGHWAY – SUITE G
YORKTOWN, VIRGINIA 23693
SHEET 2 OF 2

0 200' 400' 600'
GRAPHIC SCALE
1"=200'

NOTE:
PHYSICAL IMPROVEMENTS ARE NOT SHOWN HEREON.
NOTE:
NET DEVELOPABLE AREA = 73.47 AC. (3,200,468 S.F.)

CURVE DATA TABLE						
NUMBER	DELTA	RADIUS	LENGTH	TANGENT	CHORD	CHORD BEARING
C1	15°25'56"	625.00'	168.34'	84.68'	167.83'	S66°40'52"W

LINE DATA TABLE					
LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
L1	S50°42'34"W	245.01'	L11	N16°06'25"E	59.36'
L2	S48°49'37"W	399.99'	L12	N07°58'57"E	50.57'
L3	S20°04'34"E	57.25'	L13	N01°35'07"E	71.31'
L4	S74°23'50"W	114.00'	L14	N04°48'44"W	108.13'
L5	S15°36'10"E	50.00'	L15	N03°42'37"W	107.83'
L6	S74°23'50"W	301.00'	(L16)	(N57°36'46"E)	(371.19')
L7	N16°04'02"W	198.72'	(L17)	(N71°04'34"E)	(293.12')
L8	N28°21'34"E	63.42'	(L18)	(N70°34'34"E)	(211.82')
L9	N03°53'44"E	72.98'	(L19)	(S74°23'50"E)	(301.00')
L10	N24°13'54"E	101.65'	(L20)	(N15°36'10"W)	(533.13')

EASEMENT LEGEND

1 – 130' VEPCO EASEMENT – D.B.139 PG.317
2 – 50' COLONIAL PIPELINE EASEMENT – D.B.170 PG.328
3 – 95' VEPCO EASEMENT – D.B.173 PG.330
4 – 20' DRAINAGE EASEMENT – P.C.2 SL.96 PG.5
5 – 15' UTILITY EASEMENT – P.C.2 SL.96 PG.5
6 – 15' UTILITY EASEMENT – P.C.1 SL.388 PGS.9–11
7 – 10' DRAINAGE EASEMENT – P.C.1 SL.388 PGS.9–11
8 – 20' DRAINAGE EASEMENT – P.C.1 SL.388 PGS.9–11
9 – 50' INGRESS/EGRESS EASEMENT (50'x301')
P.C.2 SL.159 PG.3

REFERENCES

INST. #230000229
INST. #230001849
INST. #070003355
P.C.2 SL.159 PG.3
P.C.2 SL.96 PG.5
P.C.1 SL.38 PGS.9–11

– S Y M B O L S –

DENOTES IRON PIPE FOUND
DENOTES IRON ROD FOUND
DENOTES IRON ROD TO BE SET AT ALL PROPERTY LINE JUNCTURES
DENOTES CONCRETE MONUMENT FOUND
DENOTES CONCRETE MONUMENT TO BE SET
DENOTES WETLAND AREAS
DENOTES EDGE OF WETLANDS

BASIS: P.C.1 SL.96 PG.5

N/F HOLLOWAY ESTATE
D.B.37 PG.115
PARCEL ID: 41-01-053
ZONE: RAC

PARCEL ID: 42-01-006
264.047 AC. (11,545,447 S.F.)
LOCUST GROVE PARTNERS, LP
INST. #070003355
ZONE: C-LI

100' BUFFER
N06°37'17"E 343.04'
NEW R
787.91'
N81°31'48"E
S89°00'19"E 1,466.14'
N16°26'26"W 370.73'
N18°48'15"W 346.25'
L7 L8 L9 L10 L11 L12 L13 L14 L15
OHU

PARCEL ID: 42-01-006
264.047 AC. (11,545,447 S.F.)
PROPERTY OF
LOCUST GROVE PARTNERS, LP
INST. #070003355
ZONE: C-LI

PARCEL A
NEW AREA: 94.7400 AC. (4,126,874 S.F.)

LOT 15
5.0664 AC. (220,694 S.F.)
PROPERTY OF
PORTAGE PROPERTY PARTNERS, LLC
INST. #230000229 – P.C.2 SL.96 PG.5
PARCEL ID: 42-06-015
ZONE: C-LI

N/F CHISMAN
INST. #220003291
PARCEL ID: 41-01-038C
ZONE: RAC
N10°46'39"E 1,026.63'(FIELD)
1,027.51'(PLAT)
(L16)
ZONE LINE TO REMAIN
(L17)
(L18)
P'S HEREBY VACATED
RESTRICTED AREA TO REMAIN
NO DEVELOPMENT ALLOWED
19.9243 AC. (867,903 S.F.)
INST. #060005618
(L20)
100' BUFFER
EXISTING 10'±(W) DIRT PATH
(SEE DEED RESTRICTIONS)
1.56'
ZONE LINE TO REMAIN
PARCEL ID: 42-01-007D
19.9243 AC. (867,903 S.F.)
PROPERTY OF
PORTAGE PROPERTY PARTNERS, LLC
INST. #230001849
INST. #060005618
P.C.2 SL.159 PG.3
ZONE: LI
S79°54'43"W 999.47'(FIELD)
999.84'(PLAT)
N/F VEPCO
PARCEL ID: 41-01-038A
S08°23'45"E 558.96'
(L19)
L6 L5 L4 C1
PORTION OF P'S HEREBY VACATED
S50°22'43"E 572.09'
707.10' TO COMMERCE LANE
IWIP ROAD
50' R/W (PUBLIC)
N/F IWIP LLC
INST. #070006793
PARCEL ID: 42-01-007G
ZONE: LI

S57°30'56"W 549.21'
S46°12'03"W 539.64'
120.24'
44.77'
L2
L1
S04°12'08"E 470.07'
NEW R
LOT 12
LOT 11
LOT 10
LOT 8
LOT 7
LOT 3
LOT 2
LOT 1
ISLE OF WIGHT INDUSTRIAL PARK – P.C.1 SL.388 PG.9 – ZONE: LI

PARCEL ID: 42-01-006
264.047 AC. (11,545,447 S.F.)
LOCUST GROVE PARTNERS LP
INST. #070003355
ZONE: C-LI

23-0037

ISSUE:

Resolution to Amend the Budget and Appropriate Funds to Address the County Schools Operating Budget Shortfall for FY2022-2023

BACKGROUND:

The Board has previously appropriated funding by category for the Isle of Wight County School Board for FY2022-2023. Based on a reduction in the Schools' Average Daily Membership (ADM), funding from the was less than projected.

At its regular meeting on August 10, 2023, the Isle of Wight County School Board adopted a resolution requesting that the Board increase the total appropriation to the Schools' FY2022-23 Operating Budget by $603,163 for a total appropriation of $68,595,855.

The School Board is requesting an additional local appropriation to the following categories in the Schools Operating Budget for FY2022-2023 to cover the budgetary shortfall:

Instructional - $350,000
Transportation - $253,163

BUDGETARY IMPACT:

Adopting a resolution to appropriate funding will increase the overall FY2022-23 overall appropriation to Schools by $603,163.

RECOMMENDATION:

Per the Board's discussion and direction.

ATTACHMENTS:

Description	Type	Upload Date
Resolution - Schools Budget Amendment	Resolution	8/15/2023
Resolution - Increase County Contribution	Resolution	8/17/2023

RESOLUTION TO AMEND THE BUDGET AND APPROPRIATE FUNDS TO ADDRESS THE COUNTY SCHOOLS OPERATING BUDGET SHORTFALL FOR FY2022-2023

WHEREAS, the Board of Supervisors appropriated funding by category for the Isle of Wight County School Board for the 2022-2023 school year; and,

WHEREAS, the Schools' Budget is insufficient to cover costs in the Transportation category for salaries and Instruction category for substitutes; and,

WHEREAS, the School Board has requested an additional local appropriation of $253,163 for the Transportation category and $350,000 for the Instruction category in the Schools Operating Budget for FY2022-2023 to cover the $603,163 budgetary shortfall.

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of the County of Isle of Wight Virginia that the FY2022-2023 Schools Budget be amended $603,163, and funds appropriated in the amount of $253,163 for the Transportation category and $350,00 for the Instruction category.

BE IT FURTHER RESOLVED that the County Administrator of Isle of Wight County, Virginia, is authorized to make the appropriate accounting adjustments and to do all things necessary to give this resolution effect.

Adopted this 17th day of August, 2023.

_____
William M. McCarty, Sr., Chairman

_____
Carey Mills Storm, Clerk

Approved as to Form:

_____
Robert W. Jones Jr., County Attorney

RESOLUTION TO AMEND THE FY 2022-2023 BUDGET AND APPROPRIATE FUNDING FOR SCHOOLS' SHORTFALL

WHEREAS, the Isle of Wight County School Board's FY 2022-23 fiscal year is estimated to be under budgeted by $603,163; and,

WHEREAS, the School Board has requested that the Board of Supervisors increase the County Contribution by $512,448 to cover a portion of the excess expenditures; and,

WHEREAS, the Board of Supervisors approves the request and desires to amend the FY 2022-2023 General Fund Budget from unassigned fund balance in the amount of $512,448 for County Contribution to Schools; and,

WHEREAS, the Board of Supervisors needs to appropriate $512,448 for the County Contribution to Schools.

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of Isle of Wight County, Virginia, that the FY 2022-2023 County Budget is hereby amended and unassigned fund balance appropriated in the amount of $512,448 to the County School Contribution.

BE IT FURTHER RESOLVED by the Board of Supervisors of the County of Isle of Wight, Virginia that County Contribution funds in the amount of $512,448 be budgeted and appropriated to the FY 2022-23 General Fund Budget.

BE IT FURTHER RESOLVED that the County Administrator of the County of Isle of Wight, Virginia is authorized to make the appropriate accounting adjustment in the budget and to do all things necessary to give this resolution effect.

Adopted this 17th day of August, 2023.

_____
William M. McCarty, Sr, Chairman

_____
Carey Mills Storm, Clerk

Approved as to form:

_____
Robert W. Jones, Jr., County Attorney